

65		70		75		80									
Ala	Leu	Pro	Pro	Xaa	Ser	Thr	Lys	Ala	Ser	Leu	Ser	Gly	Lys	Gly	Tyr
				85					90					95	
Arg	Thr	Gln	Cys	Ser	His	Gln	Thr	Ala	Ala	Trp	Gly	Thr	Pro	Ser	Thr
			100					105					110		
Glu	Arg	Ser													
		115													

<210> 3003  
 <211> 474  
 <212> DNA  
 <213> Homo sapiens

<400> 3003  
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 60  
 tatggaagct ctgcggtcat acaaccagga gcactcccgag agcttcacgt ttgatgatgc  
 120  
 ccaacaggag gaccggaaga gactggcgga gctgctgggc tccgtcctgg aacagggcctt  
 180  
 gccaccctcc caccgtgtca tctggctgca gagtgtccga atcctgtccc gggaccgcaa  
 240  
 ctgcctggac ccgttcacca gccgccagag cctgcaggca ctgcctgct atgctgacat  
 300  
 ctctgtctct gaggggtccg tcccagagtc cgcagacatg gatgtgttac tggagtcctt  
 360  
 caagtgcctg tgcaacctcg tgctcagcag ccctgtggca cagatgctgg cagcagagga  
 420  
 ccgcctagtg gtgaagctca cagagcgtgt ggggctgtac cgtgagagga gctc  
 474

<210> 3004  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

<400> 3004  
 Met Glu Pro Arg Ala Val Ala Glu Ala Val Glu Thr Gly Glu Glu Asp  
 1 5 10 15  
 Val Ile Met Glu Ala Leu Arg Ser Tyr Asn Gln Glu His Ser Gln Ser  
 20 25 30  
 Phe Thr Phe Asp Asp Ala Gln Gln Glu Asp Arg Lys Arg Leu Ala Glu  
 35 40 45  
 Leu Leu Val Ser Val Leu Glu Gln Gly Leu Pro Pro Ser His Arg Val  
 50 55 60  
 Ile Trp Leu Gln Ser Val Arg Ile Leu Ser Arg Asp Arg Asn Cys Leu  
 65 70 75 80  
 Asp Pro Phe Thr Ser Arg Gln Ser Leu Gln Ala Leu Ala Cys Tyr Ala  
 85 90 95  
 Asp Ile Ser Val Ser Glu Gly Ser Val Pro Glu Ser Ala Asp Met Asp  
 100 105 110  
 Val Val Leu Glu Ser Leu Lys Cys Leu Cys Asn Leu Val Leu Ser Ser  
 115 120 125  
 Pro Val Ala Gln Met Leu Ala Ala Glu Ala Arg Leu Val Val Lys Leu

130 135 140  
 Thr Glu Arg Val Gly Leu Tyr Arg Glu Arg Ser  
 145 150 155

<210> 3005  
 <211> 799  
 <212> DNA  
 <213> Homo sapiens

<400> 3005  
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 gacaacagtg acaacgtgga actcaagttc aatctggacc agtacgtcaa caagcggtag  
 120  
 ccaggcctcg tgaagattgt ccgcaacagc cggcgggaag gactgatccg cgcgcggctg  
 180  
 cagggctgga aggcggccac cgccccagtc gtcggcttct ttgatgccc cgtcaggttc  
 240  
 aacacgggct gggccgagcc cgcactgtcg cggatccgag aggaccggcg tcgcatcgtg  
 300  
 ctgccagcca tcgacaacat caagtacagc acgtttgagg tgcagcagta tgcgaacgcc  
 360  
 gcccatggct acaactgggg cctctggtgc atgtacatca tccccccgca ggactggctg  
 420  
 gaccgcggcg acgagtcagc acccatcagg accccagcca tgatcggtcg ctcttcgta  
 480  
 gtggaccgcg agtacttcgg agacattggg ctgctggacc ccggcatgga ggtgtatggc  
 540  
 ggcgagaacg tagaactggg catgagggtg tggcagtggt ggcgcagcat ggaggtgctg  
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 ccttgctccc gcgtggccca catcgagcgc accaggaagc cctacaacaa cgacattgac  
 660  
 tactacgcca agcgaacgc cctgcgcacc gccgaggtgt ggatggatga cttcaagtcc  
 720  
 cacgtgtaca tggcctggaa catcccatg tcgaaccag ggggtggactt cggggacgtg  
 780  
 tctgagaggc tggccctgc  
 799

<210> 3006  
 <211> 266  
 <212> PRT  
 <213> Homo sapiens

<400> 3006  
 Val His Ser Val Val Asn His Thr Pro Ser Gln Leu Leu Lys Glu Val  
 1 5 10 15  
 Ile Leu Val Asp Asp Asn Ser Asp Asn Val Glu Leu Lys Phe Asn Leu  
 20 25 30  
 Asp Gln Tyr Val Asn Lys Arg Tyr Pro Gly Leu Val Lys Ile Val Arg  
 35 40 45  
 Asn Ser Arg Arg Glu Gly Leu Ile Arg Ala Arg Leu Gln Gly Trp Lys  
 50 55 60  
 Ala Ala Thr Ala Pro Val Val Gly Phe Phe Asp Ala His Val Glu Phe

```

65          70          75          80
Asn Thr Gly Trp Ala Glu Pro Ala Leu Ser Arg Ile Arg Glu Asp Arg
      85          90          95
Arg Arg Ile Val Leu Pro Ala Ile Asp Asn Ile Lys Tyr Ser Thr Phe
      100         105         110
Glu Val Gln Gln Tyr Ala Asn Ala Ala His Gly Tyr Asn Trp Gly Leu
      115         120         125
Trp Cys Met Tyr Ile Ile Pro Pro Gln Asp Trp Leu Asp Arg Gly Asp
      130         135         140
Glu Ser Ala Pro Ile Arg Thr Pro Ala Met Ile Gly Cys Ser Phe Val
      145         150         155         160
Val Asp Arg Glu Tyr Phe Gly Asp Ile Gly Leu Leu Asp Pro Gly Met
      165         170         175
Glu Val Tyr Gly Gly Glu Asn Val Glu Leu Gly Met Arg Val Trp Gln
      180         185         190
Cys Gly Gly Ser Met Glu Val Leu Pro Cys Ser Arg Val Ala His Ile
      195         200         205
Glu Arg Thr Arg Lys Pro Tyr Asn Asn Asp Ile Asp Tyr Tyr Ala Lys
      210         215         220
Arg Asn Ala Leu Arg Thr Ala Glu Val Trp Met Asp Asp Phe Lys Ser
      225         230         235         240
His Val Tyr Met Ala Trp Asn Ile Pro Met Ser Asn Pro Gly Val Asp
      245         250         255
Phe Gly Asp Val Ser Glu Arg Leu Ala Leu
      260         265

```

<210> 3007  
 <211> 536  
 <212> DNA  
 <213> Homo sapiens

```

<400> 3007
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tataacctgca aatctggagc tcatggtatt ggtgatgtgg aaacagctgt aaaatttgca
120
actcagctta ttgacctggg agcagacatt agtttgcgga gtcgctggac aaacatgaat
180
gctttgcatt atgctgctta ttttgatgtc cctgaactta taagagtgat tttgaaaaca
240
tcgaaaccaa aagatgtgga tgccccttgc agtgatttta attttgggaac agctttgcat
300
attgcagcat acaacttgtg tgcagggtgct gtgaagtgcc tcttggagca gggagcaa
360
cctgcattta ggaatgacaa aggacagatc cctgctgatg ttgttcaga cccagtagat
420
atgccgtag agatggctga cgccgcagcc actgctaagg aaatcaagca gatgcttcta
480
gatgcgggtg ctctgtcatg taacatctca aaggccatgc tcccccttc acgcgt
536

```

<210> 3008  
 <211> 163  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3008

```

Met Thr Leu Leu His Tyr Thr Cys Lys Ser Gly Ala His Gly Ile Gly
 1           5           10           15
Asp Val Glu Thr Ala Val Lys Phe Ala Thr Gln Leu Ile Asp Leu Gly
 20           25           30
Ala Asp Ile Ser Leu Arg Ser Arg Trp Thr Asn Met Asn Ala Leu His
 35           40           45
Tyr Ala Ala Tyr Phe Asp Val Pro Glu Leu Ile Arg Val Ile Leu Lys
 50           55           60
Thr Ser Lys Pro Lys Asp Val Asp Ala Pro Cys Ser Asp Phe Asn Phe
 65           70           75           80
Gly Thr Ala Leu His Ile Ala Ala Tyr Asn Leu Cys Ala Gly Ala Val
 85           90           95
Lys Cys Leu Leu Glu Gln Gly Ala Asn Pro Ala Phe Arg Asn Asp Lys
100           105           110
Gly Gln Ile Pro Ala Asp Val Val Pro Asp Pro Val Asp Met Pro Leu
115           120           125
Glu Met Ala Asp Ala Ala Ala Thr Ala Lys Glu Ile Lys Gln Met Leu
130           135           140
Leu Asp Ala Val Pro Leu Ser Cys Asn Ile Ser Lys Ala Met Leu Pro
145           150           155           160
Pro Ser Arg

```

&lt;210&gt; 3009

&lt;211&gt; 1335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3009

```

nnacgcgtca gtctggaaag ggcacttata agagctacca gctgccctgt tggcttcgct
60
ggtcggatcg tcctcctggc cccgccaaac aggcgggggg agcggcccg actgtggggc
120
catggcagta gtctcctcgt tctcgcgcg cgctagccta gctgagtcgc cggcttctgc
180
gctaggggct cccaccgcct ccgcaggcta aggcggcgc gccaccaacg agctgtgagg
240
gttactatgc tccctctttg ccgcgcgtct ctcctcttgc ccgcgcaggc acccctctgg
300
ctgctcagtc ctgcctcagt gtcaaaccag aagagaagta aaattcaaca aaaatttatg
360
tgtggagttc cttcttaaaa gaagaaaaaa gtgattatgt agactatgga tcggagcaaa
420
cggaattcaa ttgcaggatt tctccacgt gtggagcgtc ttgaagagtt tgaaggagg
480
ggcggaggag aaggaaatgt gagccagggt ggaagagttt ggccatcttc gtatcgagct
540
cttataagtg ccttttccag actgacgcgt ttggatgatt tcacctgtaa aaaaatagg
600
tctggcttct tttctgaagt gttcaaggta cgacaccgag cttctgggtc ggtgatggct
660

```



ctttaagatga acacattgag cagtaaccgg gcaaaccatgc tgaagaagt acagctcatg  
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 aatagactct cccatcccaa catccttagg ttcattgggtg tatgtgttca tcaaggacaa  
 780  
 ttgcatgcac ttacagagta tatcaactcc gggaacctgg aacagttgct agacagtaac  
 840  
 ctgcatttgc cttggactgt gagggtaaaa ctggcctatg acatagcagt gggcctcagc  
 900  
 taccttcact tcaaaggcat ttttcatcgg gacctcacat ctaagaactg cctgataaag  
 960  
 agggatgaga atggttactc tgcagtggta gctgactttg gcctggctga gaagatcccc  
 1020  
 gatgtcagca tggggagtga gaagctggcc gtggtgggtt cccattctg gatggcacct  
 1080  
 gaggtctctc gagatgagcc ctataatgaa aaggcagatg tgttctctta tggatcatc  
 1140  
 ctctgcgaga tcatcgctcg catccaggcc gatccggact atcttccccg cacagagaat  
 1200  
 ttcgggctgg actatgatgc ttccagcac atggtgggag actgtcccc agattttctg  
 1260  
 caacttactt tcaactgctg taactgtagt gtctttctcc ctctgccttt catcaggggc  
 1320  
 tggtgaacc ctttt  
 1335

&lt;210&gt; 3010

&lt;211&gt; 310

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3010

Met Asp Arg Ser Lys Arg Asn Ser Ile Ala Gly Phe Pro Pro Arg Val  
 1 5 10 15  
 Glu Arg Leu Glu Phe Glu Gly Gly Gly Glu Gly Asn Val  
 20 25 30  
 Ser Gln Val Gly Arg Val Trp Pro Ser Ser Tyr Arg Ala Leu Ile Ser  
 35 40 45  
 Ala Phe Ser Arg Leu Thr Arg Leu Asp Asp Phe Thr Cys Lys Lys Ile  
 50 55 60  
 Gly Ser Gly Phe Phe Ser Glu Val Phe Lys Val Arg His Arg Ala Ser  
 65 70 75 80  
 Gly Gln Val Met Ala Leu Lys Met Asn Thr Leu Ser Ser Asn Arg Ala  
 85 90 95  
 Asn Met Leu Lys Glu Val Gln Leu Met Asn Arg Leu Ser His Pro Asn  
 100 105 110  
 Ile Leu Arg Phe Met Gly Val Cys Val His Gln Gly Gln Leu His Ala  
 115 120 125  
 Leu Thr Glu Tyr Ile Asn Ser Gly Asn Leu Glu Gln Leu Leu Asp Ser  
 130 135 140  
 Asn Leu His Leu Pro Trp Thr Val Arg Val Lys Leu Ala Tyr Asp Ile  
 145 150 155 160  
 Ala Val Gly Leu Ser Tyr Leu His Phe Lys Gly Ile Phe His Arg Asp  
 165 170 175  
 Leu Thr Ser Lys Asn Cys Leu Ile Lys Arg Asp Glu Asn Gly Tyr Ser

180	185	190
Ala Val Val Ala Asp Phe Gly Leu Ala Glu Lys Ile Pro Asp Val Ser		
195	200	205
Met Gly Ser Glu Lys Leu Ala Val Val Gly Ser Pro Phe Trp Met Ala		
210	215	220
Pro Glu Val Leu Arg Asp Glu Pro Tyr Asn Glu Lys Ala Asp Val Phe		
225	230	235
Ser Tyr Gly Ile Ile Leu Cys Glu Ile Ile Val Arg Ile Gln Ala Asp		
245	250	255
Pro Asp Tyr Leu Pro Arg Thr Glu Asn Phe Gly Leu Asp Tyr Asp Ala		
260	265	270
Phe Gln His Met Val Gly Asp Cys Pro Pro Asp Phe Leu Gln Leu Thr		
275	280	285
Phe Asn Cys Cys Asn Val Ser Val Phe Leu Pro Leu Pro Phe Ile Arg		
290	295	300
Gly Trp Leu Asn Pro Phe		
305	310	

&lt;210&gt; 3011

&lt;211&gt; 3253

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3011

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nncgaggcgg cagctgcgcg gcggcaccgg ggcggctgcg gcgcgctcgg agccccgagg
60
gcacgcggcc cgggcagctc ggtgtgcgcc cccgcgagag ccggggcccc agggccgccc
120
gacacatga accacctgaa cgtgctggcc aaagcgctct atgacaatgt ggccgagtcc
180
ccggatgagc tctccttcgg caaggggtgac atcatgacgg tgctggagca ggacacgcag
240
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300
cgctcaaga tcttgggtgg catgtatgat aagaagccag cagggcctgg ctccggccct
360
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420
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480
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540
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600
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660
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720
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780
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840
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900

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cccagccagt atggccagga ggtgtatgac acacccccca tggctgtcaa ggggtcccaat  
960  
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1020  
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1080  
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1140  
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1200  
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1320  
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1380  
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1440  
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1680  
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1740  
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1920  
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1980  
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2040  
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2100  
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2160  
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2280  
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2340  
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2460  
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2520

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 3060  
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 3120  
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 3180  
 aagagtctcc atttaaataa agttttttaa aggaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 3240  
 aaaaaaaaaa aaa  
 3253

&lt;210&gt; 3012

&lt;211&gt; 870

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3012

Met Asn His Leu Asn Val Leu Ala Lys Ala Leu Tyr Asp Asn Val Ala  
 1 5 10 15  
 Glu Ser Pro Asp Glu Leu Ser Phe Arg Lys Gly Asp Ile Met Thr Val  
 20 25 30  
 Leu Glu Gln Asp Thr Gln Gly Leu Asp Gly Trp Trp Leu Cys Ser Leu  
 35 40 45  
 His Gly Arg Gln Gly Ile Val Pro Gly Asn Arg Leu Lys Ile Leu Val  
 50 55 60  
 Gly Met Tyr Asp Lys Lys Pro Ala Gly Pro Gly Ser Gly Pro Pro Ala  
 65 70 75 80  
 Thr Pro Ala Gln Pro Gln Pro Gly Leu His Ala Pro Ala Pro Pro Ala  
 85 90 95  
 Ser Gln Tyr Thr Pro Met Leu Pro Asn Thr Tyr Gln Pro Gln Pro Asp  
 100 105 110  
 Ser Val Tyr Leu Val Pro Thr Pro Ser Lys Ala Gln Gln Gly Leu Tyr  
 115 120 125  
 Gln Val Pro Gly Pro Ser Pro Gln Phe Gln Ser Pro Pro Ala Lys Gln  
 130 135 140  
 Thr Ser Thr Phe Ser Lys Gln Thr Pro His His Pro Phe Pro Ser Pro  
 145 150 155 160  
 Ala Thr Asp Leu Tyr Gln Val Pro Pro Gly Pro Gly Gly Pro Ala Gln

```

      165      170      175
Asp Ile Tyr Gln Val Pro Pro Ser Ala Gly Met Gly His Asp Ile Tyr
      180      185      190
Gln Val Pro Pro Ser Met Asp Thr Arg Ser Trp Glu Gly Thr Lys Pro
      195      200      205
Pro Ala Lys Val Val Val Pro Thr Arg Val Gly Gln Gly Tyr Val Tyr
      210      215      220
Glu Ala Ala Gln Pro Glu Gln Asp Glu Tyr Asp Ile Pro Arg His Leu
      225      230      235
Leu Ala Pro Gly Pro Gln Asp Ile Tyr Asp Val Pro Pro Val Arg Gly
      245      250      255
Leu Leu Pro Ser Gln Tyr Gly Gln Glu Val Tyr Asp Thr Pro Pro Met
      260      265      270
Ala Val Lys Gly Pro Asn Gly Arg Asp Pro Leu Leu Glu Val Tyr Asp
      275      280      285
Val Pro Pro Ser Val Glu Lys Gly Leu Pro Pro Ser Asn His His Ala
      290      295      300
Val Tyr Asp Val Pro Pro Ser Val Ser Lys Asp Val Pro Asp Gly Pro
      305      310      315
Leu Leu Arg Glu Glu Thr Tyr Asp Val Pro Pro Ala Phe Ala Lys Ala
      325      330      335
Lys Pro Phe Asp Pro Ala Arg Thr Pro Leu Val Leu Gly Ala Pro Pro
      340      345      350
Pro Asp Ser Pro Pro Ala Glu Asp Val Tyr Tyr Val Pro Pro Pro Ala
      355      360      365
Pro Asp Leu Tyr Asp Val Pro Pro Gly Leu Arg Arg Pro Gly Pro Gly
      370      375      380
Thr Leu Tyr Asp Val Pro Arg Glu Arg Val Leu Pro Pro Glu Val Ala
      385      390      395
Asp Gly Gly Val Val Asp Ser Gly Val Tyr Ala Val Pro Pro Pro Ala
      405      410      415
Glu Arg Glu Ala Pro Ala Glu Gly Lys Arg Leu Ser Ala Ser Ser Thr
      420      425      430
Gly Ser Thr Arg Ser Ser Gln Ser Ala Ser Ser Leu Glu Val Ala Gly
      435      440      445
Pro Gly Arg Glu Pro Leu Glu Leu Glu Val Ala Val Glu Ala Leu Ala
      450      455      460
Arg Leu Gln Gln Gly Val Ser Ala Thr Val Ala His Leu Leu Asp Leu
      465      470      475
Ala Gly Ser Ala Gly Ala Thr Gly Gly Trp Arg Ser Pro Ser Glu Pro
      485      490      495
Gln Glu Pro Leu Val Gln Asp Leu Gln Ala Ala Val Ala Ala Val Gln
      500      505      510
Ser Ala Val His Glu Leu Leu Glu Phe Ala Arg Ser Ala Val Gly Asn
      515      520      525
Ala Ala His Thr Ser Asp Arg Ala Leu His Ala Lys Leu Ser Arg Gln
      530      535      540
Leu Gln Lys Met Glu Asp Val His Gln Thr Leu Val Ala His Gly Gln
      545      550      555
Ala Leu Asp Ala Gly Arg Gly Gly Ser Gly Ala Thr Leu Glu Asp Leu
      565      570      575
Asp Arg Leu Val Ala Cys Ser Arg Ala Val Pro Glu Asp Ala Lys Gln
      580      585      590
Leu Ala Ser Phe Leu His Gly Asn Ala Ser Leu Leu Phe Arg Arg Thr

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595                      600                      605  
 Lys Ala Thr Ala Pro Gly Pro Glu Gly Gly Gly Thr Leu His Pro Asn  
 610                      615                      620  
 Pro Thr Asp Lys Thr Ser Ser Ile Gln Ser Arg Pro Leu Pro Ser Pro  
 625                      630                      635                      640  
 Pro Lys Phe Thr Ser Gln Asp Ser Pro Asp Gly Gln Tyr Glu Asn Ser  
 645                      650                      655  
 Glu Gly Gly Trp Met Glu Asp Tyr Asp Tyr Val His Leu Gln Gly Lys  
 660                      665                      670  
 Glu Glu Phe Glu Lys Thr Gln Lys Glu Leu Leu Glu Lys Gly Asn Ile  
 675                      680                      685  
 Thr Arg Gln Gly Lys Ser Gln Leu Glu Leu Gln Gln Leu Lys Gln Phe  
 690                      695                      700  
 Glu Arg Leu Glu Gln Glu Val Ser Arg Pro Ile Asp His Asp Leu Ala  
 705                      710                      715                      720  
 Asn Trp Thr Pro Ala Gln Pro Leu Ala Pro Gly Arg Thr Gly Gly Leu  
 725                      730                      735  
 Gly Pro Ser Asp Arg Gln Leu Leu Leu Phe Tyr Leu Glu Gln Cys Glu  
 740                      745                      750  
 Ala Asn Leu Thr Thr Leu Thr Asn Ala Val Asp Ala Phe Phe Thr Ala  
 755                      760                      765  
 Val Ala Thr Asn Gln Pro Pro Lys Ile Phe Val Ala His Ser Lys Phe  
 770                      775                      780  
 Val Ile Leu Ser Ala His Lys Leu Val Phe Ile Gly Asp Thr Leu Ser  
 785                      790                      795                      800  
 Arg Gln Ala Lys Ala Ala Asp Val Arg Ser Gln Val Thr His Tyr Ser  
 805                      810                      815  
 Asn Leu Leu Cys Asp Leu Leu Arg Gly Ile Val Ala Thr Thr Lys Ala  
 820                      825                      830  
 Ala Ala Leu Gln Tyr Pro Ser Pro Ser Ala Ala Gln Asp Met Val Glu  
 835                      840                      845  
 Arg Val Lys Glu Leu Gly His Ser Thr Gln Gln Phe Arg Arg Val Leu  
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&lt;210&gt; 3013

&lt;211&gt; 248

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3013

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&lt;210&gt; 3017

&lt;211&gt; 4796

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3017

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<212> PRT

<213> Homo sapiens

<400> 3018

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<211> 882

<212> DNA

<213> Homo sapiens

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<211> 58

<212> PRT

<213> Homo sapiens

<400> 3020

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<211> 94

<212> PRT

<213> Homo sapiens

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			20					25					30		
His	Cys	Ser	Leu	Asp	Leu	Pro	Gly	Ser	Ser	Asp	Pro	Pro	Gly	Ser	Pro
			35				40					45			
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<210> 3023

<211> 1834

<212> DNA

<213> Homo sapiens

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&lt;210&gt; 3024

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 Asp Ile Ile Met Lys Leu Lys Glu Glu Asp Met Ala Met Asn Ala Gln  
 225 230 235 240  
 Gln Asp Asn Ile Leu Pro Asp Cys Tyr Arg Ile Glu Glu Arg Phe Val  
 245 250 255  
 Arg Ser Ser Glu Gly Pro Cys Thr Leu Glu Asn Gln Val Glu Glu Arg  
 260 265 270  
 Thr Cys Ser Asp Ser Glu Asp Ile Gly Ser Ser Glu Cys Ser Asp Thr  
 275 280 285  
 Asp Ser Glu Glu Gln Gly Asp His Ala Arg Pro Lys Lys His Thr Thr  
 290 295 300  
 Asp Pro Asp Ile Asp Lys Lys Glu Arg Lys Lys Met Val Lys Glu Ala  
 305 310 315 320  
 Gln Arg Glu Lys Arg Lys Asn Lys Ile Pro Lys His Val Lys Lys Arg  
 325 330 335  
 Lys Glu Lys Thr Ala Lys Thr Lys Lys Gly Lys  
 340 345

<210> 3025  
 <211> 1370  
 <212> DNA  
 <213> Homo sapiens

<400> 3025  
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tcaagagaag ataaaaattg aaactgctaa tcatctagta ctactgctaa gccgctccaa  
120  
agcttctgaa gcacttaggt gatcttctta aatctttgac aggaaagagt aggaaacttt  
180  
ttggcagact ttacctggt gaatggactt gttttagaat caaggaaaag aagagaacat  
240  
ctcagtgaag aggatattct tcgaaataag gccatcatgg agagtgttag taaaggtgga  
300  
aacataatgg aacagaatgt tgagccgatt cgaagacagt ctcttacacc tcctcctcag  
360  
aacactatta catgggaaga atatatatct gctgaaaatg gaaaagctcc tcatctgggt  
420  
agagaattgg tgtgcaaaga gagtaagaaa acgtttaaag ctacgatagc catgagccag  
480  
gaatttcctt tagggataga gttattattg aatgttttag aagtagtagc tcccttcaag  
540  
cactttaaca agcttagaga atttgttcag atgaagcttc ctccaggctt tcctgtaaaa  
600  
ttagatatac ctgtgtttcc cacaatcaca gccactgtga cttttcagga gtttcgatac  
660  
gatgaatttg atggctccat ctttactata cctgatgact acaaggaaga cccaagccgt  
720  
tttctgac ttaactgac gtggaaaagg atgccgtcta accaaggaaa gaaaatacag  
780  
agaccctaga agtgatcca aatagaaggg acaaatgctt tcagtgaaga aaaggaatt  
840  
acacattgaa tcgacacatc agtaatacga tacagtgaag tgggcctcta ataagaattt  
900  
cagcgagttt tctgatgtgc cattttttgt ctttttaaaa atatacatat tataaatgta  
960  
atagtttgac acattaatga ccctaagacc tgcgtatgtg aagcagctat gagtgctgtg  
1020  
atttggtttt aaaaattttt acacttcttg ttgaaatata tatgcatata aatatactta  
1080  
tatctatata tatatctaaa acactcctgg accattaacg taaattaaat gtcttaagag  
1140  
atatggagcc cttttaaaact tgatcatctt atgcaagggt acatttataa atattccttc  
1200  
gagctttgtt ttcataaaat gtaaaactatg taacattatg tatagttcag taatttgaat  
1260  
gtttgttcaa tataatgaac tagaaggaaat gcaattttct gtagatgaat gaaccaaag  
1320  
gtaaccatta aacaattgca tttaaaaaaa aaaaaaaaaa aaaaaaaaaa  
1370

<210> 3026

<211> 152

<212> PRT

<213> Homo sapiens



&lt;400&gt; 3026

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Met Glu Ser Leu Ser Lys Gly Gly Asn Ile Met Glu Gln Asn Phe Glu
 1             5             10             15
Pro Ile Arg Arg Gln Ser Leu Thr Pro Pro Gln Asn Thr Ile Thr
      20             25             30
Trp Glu Glu Tyr Ile Ser Ala Glu Asn Gly Lys Ala Pro His Leu Gly
      35             40             45
Arg Glu Leu Val Cys Lys Glu Ser Lys Lys Thr Phe Lys Ala Thr Ile
      50             55             60
Ala Met Ser Gln Glu Phe Pro Leu Gly Ile Glu Leu Leu Leu Asn Val
      65             70             75             80
Leu Glu Val Val Ala Pro Phe Lys His Phe Asn Lys Leu Arg Glu Phe
      85             90             95
Val Gln Met Lys Leu Pro Pro Gly Phe Pro Val Lys Leu Asp Ile Pro
      100            105            110
Val Phe Pro Thr Ile Thr Ala Thr Val Thr Phe Gln Glu Phe Arg Tyr
      115            120            125
Asp Glu Phe Asp Gly Ser Ile Phe Thr Ile Pro Asp Asp Tyr Lys Glu
      130            135            140
Asp Pro Ser Arg Phe Pro Asp Leu
      145            150

```

&lt;210&gt; 3027

&lt;211&gt; 1154

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3027

```

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60
atccacgccca aggccttttg atcggccgtg ggtacatccg tctgagccgt tcctttccat
120
cgcagacggc ggccctccgc gcgctctcca gtcattggact accggcggct tctcatgagc
180
cgggttggtcc cggggcaatt cgacgacgcg gactcctctg acagtgaaa cagagacttg
240
aagacagtca aagagaagga tgacattctg tttgaagacc ttcaagacaa tgtgaatgag
300
aatggtgaag gtgaaataga agatgaggag gaggagggtt atgatgatga tgatgatgac
360
tgggactggg atgaaggagt tggaaaactc gccaaagggt atgtctggaa tggaggaagc
420
aaccacagg caaatcgaca gacctccgac agcagttcag ccaaaatgtc tactccagca
480
gacaaggctc tacggaaatt tgagaataaa attaatctag ataagctaaa tgttactgat
540
tccgtcataa ataaagtcac cgaaaagtct agacaaaagg aagcagatat gtatcgcatc
600
aaagataagg cagacagagc aactgtagaa caggtgttgg atcccagaac aagaatgatt
660
ttattcaaga tgttgactag aggaatcata acagagataa atggctgcat tagcacagga
720
aaagaagcta atgtatacca tgctagcaca gcaaatggag agagcagagc aatcaaaatt
780

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tataaaactt ctatttttgt gttcaaagat cgggataaat atgtaagtgg agaattcaga  
 840  
 ttctgcatg gctattgtaa aggaaaccct aggaaaatgg tgaaaacttg ggcagaaaaa  
 900  
 gaaatgagga acttaatcag gctaaacaca gcagagatac catgtccaga accaataatg  
 960  
 ctaagaagtc atgttcttgt catgagtttc atcggtaaaag atgacatttc ttttcattca  
 1020  
 aggcctgcac cactcttgaa aaatgtccag ttatcagaat ccaaggctcg ggagttgtac  
 1080  
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 1140  
 cgtcggtgag aggc  
 1154

<210> 3028

<211> 331

<212> PRT

<213> Homo sapiens

<400> 3028

Met	Asp	Tyr	Arg	Arg	Leu	Leu	Met	Ser	Arg	Val	Val	Pro	Gly	Gln	Phe
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Asp	Asp	Ala	Asp	Ser	Ser	Asp	Ser	Glu	Asn	Arg	Asp	Leu	Lys	Thr	Val
		20					25					30			
Lys	Glu	Lys	Asp	Asp	Ile	Leu	Phe	Glu	Asp	Leu	Gln	Asp	Asn	Val	Asn
	35				40						45				
Glu	Asn	Gly	Glu	Gly	Glu	Ile	Glu	Asp	Glu	Glu	Glu	Gly	Tyr	Asp	
	50				55					60					
Asp	Asp	Asp	Asp	Asp	Trp	Asp	Trp	Asp	Glu	Gly	Val	Gly	Lys	Leu	Ala
65					70				75					80	
Lys	Gly	Tyr	Val	Trp	Asn	Gly	Gly	Ser	Asn	Pro	Gln	Ala	Asn	Arg	Gln
		85						90					95		
Thr	Ser	Asp	Ser	Ser	Ala	Lys	Met	Ser	Thr	Pro	Ala	Asp	Lys	Val	
	100						105					110			
Leu	Arg	Lys	Phe	Glu	Asn	Lys	Ile	Asn	Leu	Asp	Lys	Leu	Asn	Val	Thr
	115				120						125				
Asp	Ser	Val	Ile	Asn	Lys	Val	Thr	Glu	Lys	Ser	Arg	Gln	Lys	Glu	Ala
	130				135					140					
Asp	Met	Tyr	Arg	Ile	Lys	Asp	Lys	Ala	Asp	Arg	Ala	Thr	Val	Glu	Gln
145				150					155					160	
Val	Leu	Asp	Pro	Arg	Thr	Arg	Met	Ile	Leu	Phe	Lys	Met	Leu	Thr	Arg
		165					170						175		
Gly	Ile	Ile	Thr	Glu	Ile	Asn	Gly	Cys	Ile	Ser	Thr	Gly	Lys	Glu	Ala
	180					185						190			
Asn	Val	Tyr	His	Ala	Ser	Thr	Ala	Asn	Gly	Glu	Ser	Arg	Ala	Ile	Lys
	195				200						205				
Ile	Tyr	Lys	Thr	Ser	Ile	Leu	Val	Phe	Lys	Asp	Arg	Asp	Lys	Tyr	Val
	210				215						220				
Ser	Gly	Glu	Phe	Arg	Phe	Arg	His	Gly	Tyr	Cys	Lys	Gly	Asn	Pro	Arg
225				230					235					240	
Lys	Met	Val	Lys	Thr	Trp	Ala	Glu	Lys	Glu	Met	Arg	Asn	Leu	Ile	Arg
		245					250					255			
Leu	Asn	Thr	Ala	Glu	Ile	Pro	Cys	Pro	Glu	Pro	Ile	Met	Leu	Arg	Ser

```

                260                265                270
His Val Leu Val Met Ser Phe Ile Gly Lys Asp Asp Ile Ser Phe His
                275                280                285
Ser Arg Pro Ala Pro Leu Leu Lys Asn Val Gln Leu Ser Glu Ser Lys
                290                295                300
Ala Arg Glu Leu Tyr Leu Gln Val Ile Gln Tyr Met Arg Arg Met Tyr
                305                310                315                320
Gln Asp Ala Arg Leu Val His Ala Asp Arg Arg
                325                330

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<210> 3029  
 <211> 344  
 <212> DNA  
 <213> Homo sapiens

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<400> 3029
acgcgtgatg cacggaaggg ccttcggttt ttgcattttc cttatctgct gaccttacag
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ctgaaaagat tcgattttga ttatacaacc atgcatagga ttaaactgaa tgatcgaatg
120
acatttcccg aggaactaga tatgagtact tttattgatg ttgaagatga aaaatctcct
180
cagactgaaa gttgcactga caggggagca gaaaatgaag gtagttgtca cagtgatcag
240
atgagcaacg atttctccaa tgatgatggg gttgatgaag gaatctgttt tgaaaccaat
300
agtggaaactg aaaagatctc aaaatctgga cctgaaaaga attc
344

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<210> 3030  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

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<400> 3030
Thr Arg Asp Ala Arg Lys Gly Leu Arg Phe Leu His Phe Pro Tyr Leu
1      5      10      15
Leu Thr Leu Gln Leu Lys Arg Phe Asp Phe Asp Tyr Thr Thr Met His
20     25     30
Arg Ile Lys Leu Asn Asp Arg Met Thr Phe Pro Glu Glu Leu Asp Met
35     40     45
Ser Thr Phe Ile Asp Val Glu Asp Glu Lys Ser Pro Gln Thr Glu Ser
50     55     60
Cys Thr Asp Arg Gly Ala Glu Asn Glu Gly Ser Cys His Ser Asp Gln
65     70     75     80
Met Ser Asn Asp Phe Ser Asn Asp Asp Gly Val Asp Glu Gly Ile Cys
85     90     95
Phe Glu Thr Asn Ser Gly Thr Glu Lys Ile Ser Lys Ser Gly Pro Glu
100    105    110
Lys Asn

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<210> 3031  
 <211> 567

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3031

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 60  
 cctccccctt cctattttgc cactgtttac tctgtcacac cccggatgaa ccgcagattg  
 120  
 gttggtcctg atgttattcc cctgccacac atctacggag ctccaatcaa aggtgtggaa  
 180  
 gtgtttctgtc ctctggatcc cccgccgcca tatgaagctg tggtagacca gatggaccag  
 240  
 gagcagggat cttcattcca aatgtcagaa ggatcagaag ctgctgtgat cccattggat  
 300  
 ctgggctgca cacaagtac tcaagatggg gacattccta acatacctgc cgaagaaaat  
 360  
 gcatccacct caactcccag ttcaaccctg gtgcgtccta tcagaagccg gagagccctc  
 420  
 ccacccctga ggaccaggtc gaagagtac cctgtgtctc atccttctga ggagagagct  
 480  
 gccccagtgc tcagctgtga agctgcaaca cagactgaaa ggagactgga tctggctgca  
 540  
 gtgactctga ggagaggctt gagatct  
 567

&lt;210&gt; 3032

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3032

Ala Glu Glu Ala Glu Asp His Gly Arg Ile Pro Asp Pro Asp Asp Phe  
 1 5 10 15  
 Val Pro Pro Val Pro Pro Pro Ser Tyr Phe Ala Thr Phe Tyr Ser Cys  
 20 25 30  
 Thr Pro Arg Met Asn Arg Arg Leu Val Gly Pro Asp Val Ile Pro Leu  
 35 40 45  
 Pro His Ile Tyr Gly Ala Arg Ile Lys Gly Val Glu Val Phe Cys Pro  
 50 55 60  
 Leu Asp Pro Pro Pro Pro Tyr Glu Ala Val Val Ser Gln Met Asp Gln  
 65 70 75 80  
 Glu Gln Gly Ser Ser Phe Gln Met Ser Glu Gly Ser Glu Ala Ala Val  
 85 90 95  
 Ile Pro Leu Asp Leu Gly Cys Thr Gln Val Thr Gln Asp Gly Asp Ile  
 100 105 110  
 Pro Asn Ile Pro Ala Glu Glu Asn Ala Ser Thr Ser Thr Pro Ser Ser  
 115 120 125  
 Thr Leu Val Arg Pro Ile Arg Ser Arg Arg Ala Leu Pro Pro Leu Arg  
 130 135 140  
 Thr Arg Ser Lys Ser Asp Pro Val Leu His Pro Ser Glu Glu Arg Ala  
 145 150 155 160  
 Ala Pro Val Leu Ser Cys Glu Ala Ala Thr Gln Thr Glu Arg Arg Leu  
 165 170 175  
 Asp Leu Ala Ala Val Thr Leu Arg Arg Gly Leu Arg Ser

180

185

&lt;210&gt; 3033

&lt;211&gt; 821

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3033

```

nnacgcgtga agggggaaaa tgacaagaca gacttggatg ttatacgaga aaatcataga
60
ttcctatgga atgaggagga cgaaatggac atgacttggg agaagagact tgctaagaaa
120
tactatgata aattatttaa ggaatactgc atagcagatc tcagtaaata taaagaaaat
180
aagtttggat ttagggtggc agtagaaaaa gaagtaattt caggaaaagg tcaatttttc
240
tgtggaaata aatattgtga taaaaaagaa ggcttaaaga gttgggaagt taattttggt
300
tatattgagc atggtgagaa gagaaatgca cttgttaaat taaggttatg ccaagaatgt
360
tccattaaat taaatttcca tcacaggaga aaagaaatca agtcaaaaaa aagaaaagat
420
aaaacaaaaa aagactgtga agagtcacat cataaaaaat ccagattatc ttctgcagaa
480
gaggcctcca agaaaaaaga taaaggacat tcatcttcaa agaaatctga agattctcta
540
cttagaaact ctgatgagga agaaagtgtc tcagaatctg aactttggaa ggggccacta
600
ccagagacag atgaaaaatc acaggaagaa gaatttgatg agtattttca ggatttggtt
660
ctatgagacg agagagagaa gcctccgctc cttaatgtga aacttcatga agttttaaac
720
ctcatgcaat ttgaaattcc atctacgtct ttatctgcaa gttacagctt ctgtgctttg
780
tcttcgcaac tacaaatcca ggttctctca gcaacaacac a
821

```

&lt;210&gt; 3034

&lt;211&gt; 221

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3034

```

Xaa Arg Val Lys Gly Glu Asn Asp Lys Thr Asp Leu Asp Val Ile Arg
1           5           10          15
Glu Asn His Arg Phe Leu Trp Asn Glu Glu Asp Glu Met Asp Met Thr
20          25          30
Trp Glu Lys Arg Leu Ala Lys Lys Tyr Tyr Asp Lys Leu Phe Lys Glu
35          40          45
Tyr Cys Ile Ala Asp Leu Ser Lys Tyr Lys Glu Asn Lys Phe Gly Phe
50          55          60
Arg Trp Arg Val Glu Lys Glu Val Ile Ser Gly Lys Gly Gln Phe Phe
65          70          75          80
Cys Gly Asn Lys Tyr Cys Asp Lys Lys Glu Gly Leu Lys Ser Trp Glu

```

2258

				85					90				95				
Val	Asn	Phe	Gly	Tyr	Ile	Glu	His	Gly	Glu	Lys	Arg	Asn	Ala	Leu	Val		
			100					105					110				
Lys	Leu	Arg	Leu	Cys	Gln	Glu	Cys	Ser	Ile	Lys	Leu	Asn	Phe	His	His		
			115					120					125				
Arg	Arg	Lys	Glu	Ile	Lys	Ser	Lys	Lys	Arg	Lys	Asp	Lys	Thr	Lys	Lys		
			130				135					140					
Asp	Cys	Glu	Glu	Ser	Ser	His	Lys	Lys	Ser	Arg	Leu	Ser	Ser	Ala	Glu		
						150				155					160		
Glu	Ala	Ser	Lys	Lys	Lys	Asp	Lys	Gly	His	Ser	Ser	Ser	Lys	Lys	Ser		
				165					170					175			
Glu	Asp	Ser	Leu	Leu	Arg	Asn	Ser	Asp	Glu	Glu	Glu	Ser	Ala	Ser	Glu		
				180				185					190				
Ser	Glu	Leu	Trp	Lys	Gly	Pro	Leu	Pro	Glu	Thr	Asp	Glu	Lys	Ser	Gln		
			195					200					205				
Glu	Glu	Glu	Phe	Asp	Glu	Tyr	Phe	Gln	Asp	Leu	Phe	Leu					
			210				215					220					

<210> 3035

<211> 878

<212> DNA

<213> Homo sapiens

<400> 3035

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120					
cctcagacca	cgacaggggc	ctccccacaca	cggtctcgag	aacctgtgca	aggagaacca
180					
caaaggatga	gcactctggc	ccacccaaaa	ccatggcagc	cctgagggca	cagactggac
240					
accttcgaga	gtctcactct	gtcatttcagg	gtggagtgca	atggcgcaat	ctcagctcac
300					
tgcaacctcc	cactcccggg	ctcaagcaat	tctcctgacc	cacactcagg	cccagctcct
360					
tcccagactg	tcattcctct	tctagaagga	aacagggacc	ctgggggtcg	gggatggccc
420					
tgaagctccc	gctgtgcccc	acacctggcg	ggtcttttgc	cacatgtgcc	tagagtctgc
480					
atgctctgcc	ccatggctac	ccgctgtctc	ctgcaagggt	ccagagtcac	gtccccagtg
540					
agtctctgac	ccggcggccca	gcacaccagt	gtgaatcacg	tgtgtcccca	gtgagtctct
600					
gacccggcgg	ccagcgcacc	agtgtgaate	acatgcgtcc	ccagtgagtc	tctgaccctg
660					
cgaccagagc	accagtgtga	atcacatgcg	tccccggtga	gtctctgcag	gggtgtccagt
720					
ctgtgccctc	agggctgcca	tggttttggg	tgggccagag	tgctcatcct	ttgtggttct
780					
ccctgcacaa	gttctgcgag	ccatgtgtgg	gaggccccctg	tcgtgggtctg	aggacgtccc
840					
gggttagaat	ctgtaggctg	ggcacctttc	gggaaccg		
878					

<210> 3036  
 <211> 65  
 <212> PRT  
 <213> Homo sapiens

<400> 3036  
 Gly His Arg Leu Asp Thr Leu Gln Ser Leu Thr Leu Ser Phe Arg Val  
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 Glu Cys Asn Gly Ala Ile Ser Ala His Cys Asn Leu Pro Leu Pro Gly  
 20 25 30  
 Ser Ser Asn Ser Pro Asp Pro His Ser Gly Pro Ala Pro Ser Gln Thr  
 35 40 45  
 Val Ile Leu Phe Leu Glu Gly Asn Arg Asp Pro Gly Gly Arg Gly Trp  
 50 55 60  
 Pro  
 65

<210> 3037  
 <211> 3538  
 <212> DNA  
 <213> Homo sapiens

<400> 3037  
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 acaaagaaac ttcttgatga acaagaacaa gaagatgagg aagccagcac tggatctcat  
 120  
 ctcaagctca tagtagatgc tttcctacag cagttaccca actgtgtcaa ccgagatctg  
 180  
 atagacaagg cagcaatgga tttttgcatg aacatgaaca caaaagcaaa caggaagaag  
 240  
 ttggtacggg cactcttcat agttcctaga caaagggttg atttgcctacc attttatgca  
 300  
 agattggttg ctacattgca tccctgcatg tctgatgtag cagaggatct ttgttccatg  
 360  
 ctgagggggg atttcagatt tcatgtacgg aaaaaggacc agatcaatat tgaaacaaag  
 420  
 aataaaactg ttcgttttat aggagaacta actaagttta agatgttcac caaaaatgac  
 480  
 aactgcatt gtttaaagat gcttctgtca gacttctctc atcaccatat tgaaatggca  
 540  
 tgcaccctgc tggagacatg tggacggttt cttttcagat ctccagaatc tcacctgagg  
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 accagtgtac ttttgagca aatgatgaga aagaagcaag caatgcatct tgatgcgaga  
 660  
 tacgtcacia tggtagagaa tgcattatc tactgcaacc cacctccagc tgaaaaaacc  
 720  
 gtgaaaaaga aacgtcctcc tctccaggaa tatgtccgga aacttttgta caaggatctc  
 780  
 tctaaggta ccaccgagaa ggttttgaga cagatgcgaa agctgcctg gcaggaccaa  
 840  
 gaagtgaag actatgttat ttgtgtatg ataaacatct ggaatgtgaa atataatagt  
 900

attcattgtg tagccaacct cttagcagga ctagtgctct accaagagga tgttgggac  
960  
cacgttgtgg atggagtgtt agaagatatt cgattaggaa tggagggttaa tcaacctaaa  
1020  
tttaatcaga ggcgcatcag cagtgcgaag ttcttaggag aactttacaa ttaccgaatg  
1080  
gtggaatcag ctgttatttt cagaactctg tattctttta cctcatttgg tgtaatcct  
1140  
gatggctctc caagttccct ggaccacct gagcatcttt tcagaattag actcgtatgc  
1200  
actattctgg acacatgtgg ccagtacttt gacagagggt ccagtaaacg aaaacttgat  
1260  
tgtttccttg tatattttca gcgttatgtt tgggtggaaga aaagtttggg ggtttggaca  
1320  
aaagaccatc catttcctat tgatatagat tacatgatca gtgatacact agaactgcta  
1380  
agaccaaaga tcaaaactctg taattctctg gaagaatcca tcaggcaggt acaagacttg  
1440  
gaacgagaat tcttaataaa actaggccta gtaaatgaca aagactcaaa agattttatg  
1500  
acagaaggag aaaatcttga agaggatgaa gaagaagaag aagggtggggc tgaacagaa  
1560  
gaacaatctg gaaatgaag tgaagtaaag gagccagaag aagaggaggg ttctgataat  
1620  
gatgatgatg agggagaaga agaggaggaa gagaatacag attacctac agattccaat  
1680  
aaggaaaaatg aaaccgatga agagaatact gaggtaatga ttaaaggcgg tggacttaag  
1740  
catgtacctt gtgtagaaga tgaggacttc attcaagctc tggataaaat gatgctagaa  
1800  
aatctacagc aacgaagtgg tgaatctgtt aaagtgcacc aactagatgt tgccattcct  
1860  
ttgcatctca aaagccagct gaggaaggg cccccactgg gaggtgggga aggagaggct  
1920  
gagtctgcag acacaatgcc gtttgtcatg ttaacaagaa aaggcaataa acagcagttt  
1980  
aagatcccta atgtacccat gtcctctcaa cttgctgcaa atcactggaa ccagcaacag  
2040  
gcagaacaag aagagaggat gagaatgaaa aagctcacac tagatatcaa tgaacggcaa  
2100  
gaacaagaag attatcaaga aatgttgtag tctcttgac agcgccagc tccagcaaac  
2160  
accaatcgtg agaggcggcc tcgctaccaa catccgaagg gagcacctaa tgcagatcta  
2220  
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2280  
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2520



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 3538

<210> 3038

<211> 697

<212> PRT

<213> Homo sapiens

<400> 3038

Pro Asn Cys Val Asn Arg Asp Leu Ile Asp Lys Ala Ala Met Asp Phe  
 1 5 10 15  
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 20 25 30  
 Leu Phe Ile Val Pro Arg Gln Arg Leu Asp Leu Leu Pro Phe Tyr Ala  
 35 40 45  
 Arg Leu Val Ala Thr Leu His Pro Cys Met Ser Asp Val Ala Glu Asp  
 50 55 60  
 Leu Cys Ser Met Leu Arg Gly Asp Phe Arg Phe His Val Arg Lys Lys  
 65 70 75 80  
 Asp Gln Ile Asn Ile Glu Thr Lys Asn Lys Thr Val Arg Phe Ile Gly  
 85 90 95  
 Glu Leu Thr Lys Phe Lys Met Phe Thr Lys Asn Asp Thr Leu His Cys

100	105	110
Leu Lys Met Leu Leu Ser Asp Phe Ser His His His Ile Glu Met Ala		
115	120	125
Cys Thr Leu Leu Glu Thr Cys Gly Arg Phe Leu Phe Arg Ser Pro Glu		
130	135	140
Ser His Leu Arg Thr Ser Val Leu Leu Glu Gln Met Met Arg Lys Lys		
145	150	155
Gln Ala Met His Leu Asp Ala Arg Tyr Val Thr Met Val Glu Asn Ala		
165	170	175
Tyr Tyr Tyr Cys Asn Pro Pro Pro Ala Glu Lys Thr Val Lys Lys Lys		
180	185	190
Arg Pro Pro Leu Gln Glu Tyr Val Arg Lys Leu Leu Tyr Lys Asp Leu		
195	200	205
Ser Lys Val Thr Thr Glu Lys Val Leu Arg Gln Met Arg Lys Leu Pro		
210	215	220
Trp Gln Asp Gln Glu Val Lys Asp Tyr Val Ile Cys Cys Met Ile Asn		
225	230	235
Ile Trp Asn Val Lys Tyr Asn Ser Ile His Cys Val Ala Asn Leu Leu		
245	250	255
Ala Gly Leu Val Leu Tyr Gln Glu Asp Val Gly Ile His Val Val Asp		
260	265	270
Gly Val Leu Glu Asp Ile Arg Leu Gly Met Glu Val Asn Gln Pro Lys		
275	280	285
Phe Asn Gln Arg Arg Ile Ser Ser Ala Lys Phe Leu Gly Glu Leu Tyr		
290	295	300
Asn Tyr Arg Met Val Glu Ser Ala Val Ile Phe Arg Thr Leu Tyr Ser		
305	310	315
Phe Thr Ser Phe Gly Val Asn Pro Asp Gly Ser Pro Ser Ser Leu Asp		
325	330	335
Pro Pro Glu His Leu Phe Arg Ile Arg Leu Val Cys Thr Ile Leu Asp		
340	345	350
Thr Cys Gly Gln Tyr Phe Asp Arg Gly Ser Ser Lys Arg Lys Leu Asp		
355	360	365
Cys Phe Leu Val Tyr Phe Gln Arg Tyr Val Trp Trp Lys Lys Ser Leu		
370	375	380
Glu Val Trp Thr Lys Asp His Pro Phe Pro Ile Asp Ile Asp Tyr Met		
385	390	395
Ile Ser Asp Thr Leu Glu Leu Leu Arg Pro Lys Ile Lys Leu Cys Asn		
405	410	415
Ser Leu Glu Glu Ser Ile Arg Gln Val Gln Asp Leu Glu Arg Glu Phe		
420	425	430
Leu Ile Lys Leu Gly Leu Val Asn Asp Lys Asp Ser Lys Asp Phe Met		
435	440	445
Thr Glu Gly Glu Asn Leu Glu Glu Asp Glu Glu Glu Glu Gly Gly		
450	455	460
Ala Glu Thr Glu Glu Gln Ser Gly Asn Glu Ser Glu Val Asn Glu Pro		
465	470	475
Glu Glu Glu Glu Gly Ser Asp Asn Asp Asp Asp Glu Gly Glu Glu Glu		
485	490	495
Glu Glu Glu Asn Thr Asp Tyr Leu Thr Asp Ser Asn Lys Glu Asn Glu		
500	505	510
Thr Asp Glu Glu Asn Thr Glu Val Met Ile Lys Gly Gly Gly Leu Lys		
515	520	525
His Val Pro Cys Val Glu Asp Glu Asp Phe Ile Gln Ala Leu Asp Lys		

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      530              535              540
Met Met Leu Glu Asn Leu Gln Gln Arg Ser Gly Glu Ser Val Lys Val
545              550              555              560
His Gln Leu Asp Val Ala Ile Pro Leu His Leu Lys Ser Gln Leu Arg
      565              570              575
Lys Gly Pro Pro Leu Gly Gly Gly Glu Gly Glu Ala Glu Ser Ala Asp
      580              585              590
Thr Met Pro Phe Val Met Leu Thr Arg Lys Gly Asn Lys Gln Gln Phe
      595              600              605
Lys Ile Leu Asn Val Pro Met Ser Ser Gln Leu Ala Ala Asn His Trp
      610              615              620
Asn Gln Gln Gln Ala Glu Gln Glu Glu Arg Met Arg Met Lys Lys Leu
      625              630              635              640
Thr Leu Asp Ile Asn Glu Arg Gln Glu Gln Glu Asp Tyr Gln Glu Met
      645              650              655
Leu Gln Ser Leu Ala Gln Arg Pro Ala Pro Ala Asn Thr Asn Arg Glu
      660              665              670
Arg Arg Pro Arg Tyr Gln His Pro Lys Gly Ala Pro Asn Ala Asp Leu
      675              680              685
Ile Phe Lys Thr Gly Gly Arg Arg Arg
      690              695

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&lt;210&gt; 3039

&lt;211&gt; 1836

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3039

```

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120
tcgttagaat ctctcaccct gcttctcggt ctgatctgtg caagctcagt ctcttctgag
180
cctgcagcta cctccatccc tcatcgtagt gcaggccaaa ccaaatttta taaaattaac
240
aatttaagggt taaataagct taaataagggt tgtaaataac aagacacttc atcaaagctt
300
ctgtacaaag ataacaaat ctggcattgt acaagtgggt ccgctggctc acagcacaca
360
gggaagttct agtgagtaag cagattcact ctcatctctt tccagcagag caactataca
420
aaagtgaact aagagttgaa gtgactactg accactcggg gagccattta caaggcatat
480
gtatcttttt tttgttttta atcagaacac tgtaatatatt caggcaccat ttgttctctgc
540
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600
tttttttttt aatcccccca caaagctttt ccaactatgt actatgcctc ctttcttatt
660
gctatggtaa tgggctgtg gaaataaaac tactgtacat ccaaaaaaat agagcacctt
720
taacattaaa gtatatgtct gattatttgt tctcatgttt attttacaat actaaagccc
780

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 caactatctt ccctcttgag gtaagcccaa gccagagcac tggttttagca gagtctaaaa  
 900  
 gaaaaagggt tcaactgtcg ccagggttta cattcatctt cacaccagga gttacattca  
 960  
 ttcatcttta catcggcgct gctctctgcc gtgggttaccg agaaagagtc gaggctccct  
 1020  
 atcctgctgt ggtgaatggt gctacacaga atggaacagc aaaaacatct acgattgggt  
 1080  
 gaaagcacac agaaaaacca catgtttgtg acttcaaagg gacaaggggc atttcccagt  
 1140  
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 1200  
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 1260  
 cctgtctcag gtgtgtcact tctgcttga gaacggcctt gtcttgtttt tccttccgaa  
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 1380  
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 1440  
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 1836

<210> 3040

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3040

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Leu	Pro	Asp	Thr	Ala	Thr	Gly	Leu	Asp	Trp	Thr	His	Leu	Val	Asp	Ala
			20					25					30		
Ala	Arg	Ala	Phe	Glu	Asp	Gln	Arg	Val	Ala	Ser	Phe	Cys	Thr	Leu	Thr
		35					40					45			
Asp	Met	Gln	His	Gly	Gln	Asp	Leu	Glu	Gly	Ala	Gln	Glu	Leu	Pro	Leu
	50					55				60					
Cys	Val	Asp	Pro	Gly	Ser	Gly	Lys	Glu	Phe	Met	Asp	Thr	Thr	Gly	Glu
	65				70					75				80	
Arg	Ser	Pro	Ser	Pro	Leu	Thr	Gly	Lys	Val	Asn	Gln	Leu	Glu	Leu	Ile

				85						90					95				
Leu	Arg	Gln	Leu	Gln	Thr	Asp	Leu	Arg	Lys	Glu	Lys	Gln	Asp	Lys	Ala				
				100						105					110				
Gly	Leu	Gln	Ala	Glu	Val	Gln	His	Leu	Arg	Gln	Asp	Asn	Met	Arg	Leu				
				115				120						125					
Gln	Glu	Glu	Ser	Gln	Thr	Ala	Thr	Ala	Gln	Leu	Arg	Lys	Leu						
				130				135					140						

&lt;210&gt; 3041

&lt;211&gt; 1512

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3041

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tgggagtgcg cggcaggagc cggccaggcg ggctgcaggc acctcagagc ccgggacacc
120
ccctcaacgt ccgcaggcgc gatgaaggca ctgatcttag tggggggcta tgggacgcgg
180
ctacggccgc tgacgctgag cccccgaag ccaactgggtg acttctgcaa taagcccatc
240
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300
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360
cgaatctcca tgtcccatga agaggagcct ttggggacag ctggggccct ggcgctggcc
420
cgtgacctac tctctgagac tgcagaccct ttcttcgtcc tcaacagtga cgtgatctgc
480
gatttccctt tccaagccat ggtgcagttc caccggcacc atggccagga gggctccatc
540
ctggtgacca aggtggagga accctccaag tacggtgtgg tgggtgtgtga ggctgacaca
600
ggccgcatte accggttcgt ggagaagcca cagggtgttg tgtccaataa gatcaacgca
660
ggcatgtaca tcctgagccc tgcagtgtcg cggcgcatcc agctgcagcc tacgtccatt
720
gagaaggagg tcttcccat tatggccaag gaggggcagc tatatgccat ggagttacag
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900
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1140
gatgagctct acctcaacgg agccagcgtg ctgccccaca agtctattgg cgagtcagtg
1200

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 1260  
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 1320  
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 1380  
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 aaaaaaaaaa aa  
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<210> 3042  
 <211> 360  
 <212> PRT  
 <213> Homo sapiens

<400> 3042  
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 1 5 10 15  
 Leu Thr Leu Ser Thr Pro Lys Pro Leu Val Asp Phe Cys Asn Lys Pro  
 20 25 30  
 Ile Leu Leu His Gln Val Glu Ala Leu Ala Ala Gly Val Asp His  
 35 40 45  
 Val Ile Leu Ala Val Ser Tyr Met Ser Gln Val Leu Glu Lys Glu Met  
 50 55 60  
 Lys Ala Gln Glu Gln Arg Leu Gly Ile Arg Ile Ser Met Ser His Glu  
 65 70 75 80  
 Glu Glu Pro Leu Gly Thr Ala Gly Pro Leu Ala Leu Ala Arg Asp Leu  
 85 90 95  
 Leu Ser Glu Thr Ala Asp Pro Phe Phe Val Leu Asn Ser Asp Val Ile  
 100 105 110  
 Cys Asp Phe Pro Phe Gln Ala Met Val Gln Phe His Arg His His Gly  
 115 120 125  
 Gln Glu Gly Ser Ile Leu Val Thr Lys Val Glu Glu Pro Ser Lys Tyr  
 130 135 140  
 Gly Val Val Val Cys Glu Ala Asp Thr Gly Arg Ile His Arg Phe Val  
 145 150 155 160  
 Glu Lys Pro Gln Val Phe Val Ser Asn Lys Ile Asn Ala Gly Met Tyr  
 165 170 175  
 Ile Leu Ser Pro Ala Val Leu Arg Arg Ile Gln Leu Gln Pro Thr Ser  
 180 185 190  
 Ile Glu Lys Glu Val Phe Pro Ile Met Ala Lys Glu Gly Gln Leu Tyr  
 195 200 205  
 Ala Met Glu Leu Gln Gly Phe Trp Met Asp Ile Gly Gln Pro Lys Asp  
 210 215 220  
 Phe Leu Thr Gly Met Cys Leu Phe Leu Gln Ser Leu Arg Gln Lys Gln  
 225 230 235 240  
 Pro Glu Arg Leu Cys Ser Gly Pro Gly Ile Val Gly Asn Val Leu Val  
 245 250 255  
 Asp Pro Ser Ala Arg Ile Gly Gln Asn Cys Ser Ile Gly Pro Asn Val  
 260 265 270  
 Ser Leu Gly Pro Gly Val Val Val Glu Asp Gly Val Cys Ile Arg Arg

```

      275              280              285
Cys Thr Val Leu Arg Asp Ala Arg Ile Arg Ser His Ser Trp Leu Glu
  290              295              300
Ser Cys Ile Val Gly Trp Arg Cys Arg Val Gly Gln Trp Val Arg Met
  305              310              315              320
Glu Asn Val Thr Val Leu Gly Glu Asp Val Ile Val Asn Asp Glu Leu
      325              330              335
Tyr Leu Asn Gly Ala Ser Val Leu Pro His Lys Ser Ile Gly Glu Ser
      340              345              350
Val Pro Glu Pro Arg Ile Ile Met
      355              360

```

&lt;210&gt; 3043

&lt;211&gt; 394

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3043

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120
cttctctgac ctcactccaa ctacgtgtc tttgacactt taagggactt cctgttttag
180
ggctctctgg ctgggtgtca ttgaatgggc agtgattctc taactttaga ctgatgttcc
240
ccagcctttg tttggggact cggaggcaga gtagacagtt acccttaccg ctgggttggg
300
gaggggtcata ttcttggtat cccagggagg tcaacagggg cttcattttt ctgaggggact
360
agaggggtctt gtggagctcc tgggacagag atct
394

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&lt;210&gt; 3044

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3044

```

Met Lys Pro Leu Leu Thr Ser Trp Gly Tyr Gln Glu Tyr Asp Pro Pro
  1              5              10              15
Gln Pro Arg Gly Lys Gly Asn Cys Leu Leu Cys Leu Arg Val Pro Lys
  20              25              30
Gln Arg Leu Gly Asn Ile Ser Leu Lys Leu Glu Asn His Cys Pro Phe
  35              40              45
Asn Asp Thr Gln Pro Glu Asp Pro Lys Thr Gly Ser Pro Leu Lys Cys
  50              55              60
Gln Arg His Val Ser Trp Ser Glu Val Arg Glu Ala Asp Ser Gly Leu
  65              70              75              80
Leu Leu Gly Gln Thr Pro Val Lys Arg Lys Arg Trp His His Glu Thr
      85              90              95
Ser Ser Phe Ser Pro Cys Leu Trp Leu Lys Ala Arg Ala Ser Arg Ser
      100              105              110
Lys Glu Ile

```

115

&lt;210&gt; 3045

&lt;211&gt; 605

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3045

```

nnggatacctt gtcgtagtct tgcaggagaa aattgctgcc ttgatagct gtactttcac
60
gaagaaattc tttgttacia gctgctatcc atgtccaggg ccaaactga atcctattgc
120
tcttgggagc cgctggcttg cttatgcaga aaacaagttg attcgatgac atcagtcacc
180
tggtggagcc tgtggagaca acattcagtc ttatactgcc acagtcatta gtgctgctaa
240
aacattgaaa agtggcctga caatggtagg gaaagtggcg actcagctga caggcacact
300
gccttcaggt gtgacagaag atgatgttg catccacagt aattcacggc ggagtccttt
360
gggccaggc atcatcacag ttattgacac cgaaaccgtg gagagggcca ggtgtttgtg
420
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480
tgctgcatgg cttttaatac aagtggaatg cttctagtca caacagacac ccttggccat
540
gactttcatg tcttccaaat tctgactcat ccttggctct catctacgga gagacgacaa
600
cgcggt
605

```

&lt;210&gt; 3046

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3046

```

His Arg Asn Arg Gly Glu Gly Gln Val Phe Val Ser Glu Asp Leu Asp
1           5           10           15
Ser Asp Gly Ile Val Ala His Phe Pro Ala His Glu Lys Pro Val Cys
20           25           30
Cys Met Ala Phe Asn Thr Ser Gly Met Leu Leu Val Thr Thr Asp Thr
35           40           45
Leu Gly His Asp Phe His Val Phe Gln Ile Leu Thr His Pro Trp Ser
50           55           60
Ser Ser Thr Glu Arg Arg Gln Arg
65           70

```

&lt;210&gt; 3047

&lt;211&gt; 391

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3047



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 60  
 ctggaacatg tccgtgctct gatcaaaaag tattctgac atttggagaa cgtctcaaag  
 120  
 ttggttgagt caggaattca gtttatggat gagccagaaa tggcagtgtt tctgcagaat  
 180  
 gccaaaaccc tgctaaaaaa aatctcggaa gcatcaaagg catttcagat ggagaaaata  
 240  
 gaacatggct atgagaacat gaaccacttc acagtcaacc tcaatagaga agaaaagata  
 300  
 atacgtgaaa ttgactttta cagagaagat gaagatgaag aagaagaaga aggcggagaa  
 360  
 ggagaaaaag aagagaagga gaagtgggag a  
 391

<210> 3048

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3048

Met	Thr	Gln	Val	Ile	Thr	Arg	Thr	Gln	Glu	Glu	Lys	Leu	Glu	His	Val
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Arg	Ala	Leu	Ile	Lys	Lys	Tyr	Ser	Asp	His	Leu	Glu	Asn	Val	Ser	Lys
		20						25					30		
Leu	Val	Glu	Ser	Gly	Ile	Gln	Phe	Met	Asp	Glu	Pro	Glu	Met	Ala	Val
		35					40					45			
Phe	Leu	Gln	Asn	Ala	Lys	Thr	Leu	Leu	Lys	Lys	Ile	Ser	Glu	Ala	Ser
		50				55					60				
Lys	Ala	Phe	Gln	Met	Glu	Lys	Ile	Glu	His	Gly	Tyr	Glu	Asn	Met	Asn
		65			70					75				80	
His	Phe	Thr	Val	Asn	Leu	Asn	Arg	Glu	Glu	Lys	Ile	Ile	Arg	Glu	Ile
			85					90					95		
Asp	Phe	Tyr	Arg	Glu	Asp	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Gly	Gly	Glu
			100					105					110		
Gly	Glu	Lys	Glu	Glu	Lys	Glu	Lys	Trp	Glu						
			115				120								

<210> 3049

<211> 599

<212> DNA

<213> Homo sapiens

<400> 3049

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 120  
 tttccttctc tgaacgaaag ctcgcccgag gtgctcgaat acaccattaa ggaagaaaag  
 180  
 tcgatattgt acctggaagg ctcggtcttt gtgtttgagg acatcttcag attgattgag  
 240  
 ttctactgtg tcagtagaga cttactgccc ttcacactgc ggctacccca ggccatcctt  
 300

gaggccagca gcttcacgga ccttgagacc atcgccaacc tgggtctggg tttctgggac  
 360  
 tcctcgctga atcctccaca agaaagaggg aagccagcag agccccaag agaccgggcc  
 420  
 cccggattcc ccctagtctc cagcctcagg cccacagccc atgacgcaaa ctgtgcctgt  
 480  
 gaaatcgagc tgtcggtagg aaatgaccgc ctgtggtttg tgaatcctat tttcatcgag  
 540  
 gactgcagca gcgcctgcc caccgaccag ccacctcttg gaaattgccc ttcacgcgt  
 599

<210> 3050

<211> 177

<212> PRT

<213> Homo sapiens

<400> 3050

Met	Phe	Leu	Val	Arg	Arg	Asp	Ser	Ser	Ser	Lys	Gln	Leu	Val	Leu	Cys
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Val	His	Phe	Pro	Ser	Leu	Asn	Glu	Ser	Ser	Ala	Glu	Val	Leu	Glu	Tyr
			20					25					30		
Thr	Ile	Lys	Glu	Glu	Lys	Ser	Ile	Leu	Tyr	Leu	Glu	Gly	Ser	Ala	Leu
		35				40					45				
Val	Phe	Glu	Asp	Ile	Phe	Arg	Leu	Ile	Ala	Phe	Tyr	Cys	Val	Ser	Arg
	50				55				60						
Asp	Leu	Leu	Pro	Phe	Thr	Leu	Arg	Leu	Pro	Gln	Ala	Ile	Leu	Glu	Ala
65				70				75					80		
Ser	Ser	Phe	Thr	Asp	Leu	Glu	Thr	Ile	Ala	Asn	Leu	Gly	Leu	Gly	Phe
			85					90					95		
Trp	Asp	Ser	Ser	Leu	Asn	Pro	Pro	Gln	Glu	Arg	Gly	Lys	Pro	Ala	Glu
		100				105						110			
Pro	Pro	Arg	Asp	Arg	Ala	Pro	Gly	Phe	Pro	Leu	Val	Ser	Ser	Leu	Arg
		115				120						125			
Pro	Thr	Ala	His	Asp	Ala	Asn	Cys	Ala	Cys	Glu	Ile	Glu	Leu	Ser	Val
		130			135					140					
Gly	Asn	Asp	Arg	Leu	Trp	Phe	Val	Asn	Pro	Ile	Phe	Ile	Glu	Asp	Cys
145				150				155					160		
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Arg

<210> 3051

<211> 820

<212> DNA

<213> Homo sapiens

<400> 3051

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 180

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 240  
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 300  
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 720  
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<210> 3052

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3052

Arg	Leu	Ser	Gly	Tyr	Gln	His	Asn	Ile	Pro	Pro	Thr	Phe	Ser	Ser	Gln
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Gly	Thr	Pro	Ser	Ser	Ala	Thr	Val	Ala	Gln	Gln	Ala	Ser	Ser	Ser	Pro
			20					25					30		
Val	Pro	Gly	Gly	Thr	Pro	Thr	Asp	Ala	Leu	Ser	Pro	Xaa	Thr	Thr	Met
		35				40					45				
Thr	Ser	His	Pro	Ser	Ser	Pro	Lys	Cys	Gly	Val	Ser	Pro	Leu		
	50					55					60				

<210> 3053

<211> 2625

<212> DNA

<213> Homo sapiens

<400> 3053

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 120  
 cagtttaaaa gatttagaga aactgtacca acttgggata caataagaga tgaagaagat  
 180  
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 240  
 ggaatctcac ttaatatcc tgctccacaa cctgtgtgca tttctgaaaa acaagaaaat  
 300

gatgttatta atgctatcct taagcaacat acagaagaaa aagaatttgt tgagaagcac  
360  
tttaatgact taaacatgaa agctgtggaa caagatgaac caatacctca aaaacctcag  
420  
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480  
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1920

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 2280  
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 2340  
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 2460  
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<210> 3054

<211> 417

<212> PRT

<213> Homo sapiens

<400> 3054

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Glu	Lys	Pro	Glu	Glu	Pro	Pro	Thr	Ser	Asn	Glu	Cys	Leu	Glu	Asp	Ile
		20						25					30		
Thr	Val	Lys	Asp	Gly	Leu	Ser	Leu	Gln	Phe	Lys	Arg	Phe	Arg	Glu	Thr
		35					40					45			
Val	Pro	Thr	Trp	Asp	Thr	Ile	Arg	Asp	Glu	Glu	Asp	Val	Leu	Asp	Glu
		50				55				60					
Leu	Leu	Gln	Tyr	Leu	Gly	Val	Thr	Ser	Pro	Glu	Cys	Leu	Gln	Arg	Thr
65					70					75				80	
Gly	Ile	Ser	Leu	Asn	Ile	Pro	Ala	Pro	Gln	Pro	Val	Cys	Ile	Ser	Glu
			85					90						95	
Lys	Gln	Glu	Asn	Asp	Val	Ile	Asn	Ala	Ile	Leu	Lys	Gln	His	Thr	Glu
			100					105					110		
Glu	Lys	Glu	Phe	Val	Glu	Lys	His	Phe	Asn	Asp	Leu	Asn	Met	Lys	Ala
		115					120					125			
Val	Glu	Gln	Asp	Glu	Pro	Ile	Pro	Gln	Lys	Pro	Gln	Ser	Ala	Phe	Tyr
		130				135					140				
Tyr	Cys	Arg	Leu	Leu	Leu	Ser	Ile	Leu	Gly	Met	Asn	Ser	Trp	Asp	Lys
145				150						155				160	
Arg	Arg	Ser	Phe	His	Leu	Leu	Lys	Lys	Asn	Glu	Lys	Leu	Leu	Arg	Glu
			165					170						175	
Leu	Arg	Asn	Leu	Asp	Ser	Arg	Gln	Cys	Arg	Glu	Thr	His	Lys	Ile	Ala

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      195      200      205
Asn Thr Gly Gly Ser Gln Ala Tyr Glu Asp Phe Val Ala Gly Leu Gly
      210      215      220
Trp Glu Val Asn Leu Thr Asn His Cys Gly Phe Met Gly Gly Leu Gln
      225      230      235      240
Lys Asn Lys Ser Thr Gly Leu Thr Thr Pro Tyr Phe Ala Thr Ser Thr
      245      250      255
Val Glu Val Ile Phe His Val Ser Thr Arg Met Pro Ser Asp Ser Asp
      260      265      270
Asp Ser Leu Thr Lys Lys Leu Arg His Leu Gly Asn Asp Glu Val His
      275      280      285
Ile Val Trp Ser Glu His Thr Arg Asp Tyr Arg Arg Gly Ile Ile Pro
      290      295      300
Thr Glu Phe Gly Asp Val Leu Ile Val Ile Tyr Pro Met Lys Asn His
      305      310      315      320
Met Phe Ser Ile Gln Ile Met Lys Lys Pro Glu Val Pro Phe Phe Gly
      325      330      335
Pro Leu Phe Asp Gly Ala Ile Val Asn Gly Lys Val Leu Pro Ile Met
      340      345      350
Val Arg Ala Thr Ala Ile Asn Ala Ser Arg Ala Leu Lys Ser Leu Ile
      355      360      365
Pro Leu Tyr Gln Asn Phe Tyr Glu Glu Arg Ala Arg Tyr Leu Gln Thr
      370      375      380
Ile Val Gln His His Leu Glu Pro Thr Thr Phe Glu Asp Phe Ala Ala
      385      390      395      400
Gln Val Phe Ser Pro Ala Pro Tyr His His Leu Pro Ser Asp Ala Asp
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<210> 3055

<211> 905

<212> DNA

<213> Homo sapiens

<400> 3055

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360
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gagcttgatt gggggcagtg gggccggctg ggagggcaca gccttactgc accatggcag
480

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<210> 3056

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3056

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Cys	Leu	Thr	Asn	Tyr	Gly	His	Cys	Asn	Tyr	Val	Ser	Gly	Lys	His	Ala
			20					25					30		
Cys	Ile	Phe	Tyr	Asp	Glu	Asn	Thr	Lys	His	Tyr	Glu	Leu	Leu	Asn	Tyr
		35					40					45			
Ser	Glu	His	Gly	Thr	Thr	Val	Asp	Asn	Val	Leu	Tyr	Ser	Cys	Asp	Phe
	50					55					60				
Ser	Glu	Lys	Thr	Pro	Pro	Thr	Pro	Pro	Ser	Ser	Ile	Val	Ala	Lys	Val
	65				70				75					80	
Gln	Ser	Val	Ile	Arg	Arg	Arg	Arg	His	Gln	Lys	Gln	Asp	Glu	Glu	Pro
			85					90						95	
Ser	Glu	Glu	Ala	Ala	Met	Met	Ser	Ser	Gln	Ala	Gln	Gly	Pro	Gln	Arg
			100					105					110		
Arg	Pro	Cys	Asn	Cys	Lys	Ala	Ser	Ser	Ser	Ser	Leu	Ile	Gly	Gly	Ser
		115					120					125			
Gly	Ala	Gly	Trp	Glu	Gly	Thr	Ala	Leu	Leu	His	His	Gly	Ser	Tyr	Ile
	130					135					140				
Lys	Leu	Gly	Cys	Leu	Gln	Phe	Val	Phe	Ser	Ile	Thr	Glu	Phe	Ala	Thr
	145				150					155				160	
Lys	Gln	Pro	Lys	Gly	Asp	Ala	Ser	Leu	Leu	Gln	Asp	Gly	Val	Leu	Ala
			165					170						175	
Glu	Lys	Leu	Ser	Leu	Lys	Pro	His	Gln	Gly	Pro	Val	Leu	Arg	Ser	Asn
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<210> 3057

<211> 2169

<212> DNA

<213> Homo sapiens

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<210> 3058

<211> 298

<212> PRT

<213> Homo sapiens

<400> 3058

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 50 55 60  
 Ala Arg Ser Trp Tyr Cys Asn Arg Gly Leu Val Ser Leu Ser Ala Lys  
 65 70 75 80  
 Ile Asp Arg Lys Gly Tyr Thr Pro Gly Glu Val Ile Pro Val Phe Ala  
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 Glu Ile Asp Asn Gly Ser Thr Arg Pro Val Leu Pro Arg Ala Ala Val  
 100 105 110  
 Val Gln Thr Gln Thr Phe Met Ala Arg Gly Ala Arg Lys Gln Lys Arg  
 115 120 125  
 Ala Val Val Ala Ser Leu Ala Gly Glu Pro Val Gly Pro Gly Gln Arg  
 130 135 140  
 Ala Leu Trp Gln Gly Arg Ala Leu Arg Ile Pro Pro Val Gly Pro Ser  
 145 150 155 160  
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 180 185 190  
 Ile Gly Thr Ile Pro Leu His Pro Phe Gly Ser Arg Ser Ser Val

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	210					215					220				
Glu	Arg	Pro	Glu	Ala	Pro	Pro	Glu	Tyr	Ser	Glu	Val	Val	Ala	Asp	Thr
225					230					235				240	
Glu	Glu	Ala	Ala	Leu	Gly	Gln	Ser	Pro	Phe	Pro	Leu	Pro	Gln	Asp	Pro
				245					250					255	
Asp	Met	Ser	Leu	Glu	Gly	Pro	Phe	Phe	Ala	Tyr	Ile	Gln	Glu	Phe	Arg
			260				265						270		
Tyr	Arg	Pro	Pro	Pro	Leu	Tyr	Ser	Glu	Glu	Asp	Pro	Asn	Pro	Leu	Leu
		275					280					285			
Gly	Asp	Met	Arg	Pro	Arg	Cys	Met	Thr	Cys						
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<210> 3059
<211> 1411
<212> DNA
<213> Homo sapiens
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180						
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240						
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300						
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360						
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420						
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<210> 3060

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3060

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 35 40 45  
 Arg Ser Trp Ser Arg Asp Leu Gln Pro Arg Ser His Ser Tyr Asp Arg  
 50 55 60  
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 65 70 75 80  
 Lys Arg Ser Arg Ser Arg Ser Arg Gly Arg Gly Lys Ser Tyr Arg Val  
 85 90 95  
 Gln Arg Ser Arg Ser Lys Ser Arg Thr Arg Arg Ser Arg Ser Arg Pro  
 100 105 110  
 Arg Leu Arg Ser His Ser Arg Ser Ser Glu Arg Ser Ser His Arg Arg  
 115 120 125  
 Thr Arg Ser Arg Ser Arg Asp Arg Glu Arg Arg Lys Gly Arg Asp Lys  
 130 135 140  
 Glu Lys Arg Glu Lys Glu Lys Asp Lys Gly Lys Asp Lys Glu Leu His  
 145 150 155 160  
 Asn Ile Lys Arg Gly Glu Ser Gly Asn Ile Lys Ala Gly Leu Glu His  
 165 170 175  
 Leu Pro Pro Ala Glu Gln Ala Lys Ala Arg Leu Gln Leu Val Leu Glu  
 180 185 190  
 Ala Ala Ala Lys Ala Asp Glu Ala Leu Lys Ala Lys Glu Arg Asn Glu  
 195 200 205  
 Glu Glu Ala Lys Arg Arg Lys Glu Glu Asp Gln Ala Thr Leu Val Glu  
 210 215 220  
 Gln Val Lys Arg Val Lys Glu Ile Glu Ala Ile Glu Ser Asp Ser Phe  
 225 230 235 240  
 Val Gln Gln Thr Phe Arg Ser Ser Lys Glu Val Lys Lys Ser Val Glu  
 245 250 255  
 Pro Ser Glu Val Lys Gln Ala Thr Ser Thr Ser Gly Pro Ala Ser Ala

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Pro	Thr	Ala	Ile	Lys	Tyr	Gln	Asp	Asp	Asn	Ser	Leu	Ala	His	Pro	Asn
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&lt;210&gt; 3061

&lt;211&gt; 1554

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3061

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<211> 146

<212> PRT

<213> Homo sapiens

<400> 3062

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 Ser Ser Ser Phe Arg Leu Leu Gln Glu Ala Leu Glu Ala Glu Glu Arg  
 35 40 45  
 Gly Gly Thr Pro Ala Phe Leu Pro Ser Ser Leu Ser Pro Gln Ser Ser  
 50 55 60  
 Leu Pro Ala Ser Arg Ala Leu Ala Thr Pro Pro Lys Leu His Thr Cys  
 65 70 75 80  
 Glu Lys Cys Ser Thr Ser Ile Ala Asn Gln Ala Val Arg Ile Gln Glu  
 85 90 95  
 Gly Arg Tyr Arg His Pro Gly Cys Tyr Thr Cys Ala Asp Cys Gly Leu  
 100 105 110  
 Asn Leu Lys Met Arg Gly His Phe Trp Val Gly Asp Glu Leu Tyr Cys  
 115 120 125  
 Glu Lys His Ala Arg Gln Arg Tyr Ser Ala Pro Ala Thr Leu Ser Ser  
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<210> 3063

<211> 386

<212> DNA

<213> Homo sapiens

<400> 3063

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<210> 3064  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 3064  
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 Tyr Gln Cys Ser Arg Pro Ala Pro Leu His Ser Arg Asp Leu His Ser  
 35 40 45  
 Met Ile Val Ala Ala Phe Gln Cys Leu Cys Val Trp Leu Thr Glu His  
 50 55 60  
 Pro Asp Met Leu Asp Glu Lys Asp Tyr Leu Lys Glu Val Leu Glu Ile  
 65 70 75 80  
 Val Glu Leu Gly Ile Ser Gly Ser Lys Ser Lys Asn Asn Glu Gln Glu  
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 Val Lys Tyr Lys Lys Asp Lys Glu Pro Asn Pro Ala Ser Met Arg Val  
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 Lys Asp Ala Ala Glu Ala Thr Leu Thr Trp Tyr Gly Ser Asp Arg Thr  
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<210> 3065  
 <211> 2104  
 <212> DNA  
 <213> Homo sapiens

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1920  
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1980  
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<210> 3066  
<211> 183  
<212> PRT  
<213> Homo sapiens

<400> 3066  
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Leu Gln Gly Glu His Ser Gln Asn Gly Glu Glu Glu Pro Glu Thr Glu  
35 40 45  
Pro Val Gly Glu Glu Ser Ile Ser Asp Ala Glu Lys Val Ala Met Xaa  
50 55 60  
Ser Gln Gly Pro Xaa Thr Ala Pro Gly Ser Pro Cys Arg Ser Cys Gly  
65 70 75 80  
Thr Cys Cys Thr Arg Gly Thr Xaa Leu Lys Ser Lys Val Phe Leu Leu  
85 90 95  
Gln Glu Glu Leu Ala Tyr Tyr Lys Ser Glu Glu Met Glu Glu Glu Asn  
100 105 110  
Arg Ile Pro Gln Pro Pro Pro Ile Ala His Pro Arg Thr Ser Pro Gln  
115 120 125  
Pro Glu Ser Gly Ile Lys Arg Leu Phe Ser Phe Phe Ser Arg Asp Lys  
130 135 140  
Lys Arg Leu Ala Asn Thr Gln Arg Asn Val His Ile Gln Glu Ser Phe  
145 150 155 160  
Gly Gln Trp Ala Asn Thr His Arg Asp Asp Gly Tyr Thr Glu Gln Gly  
165 170 175  
Gln Glu Ala Leu Gln His Leu  
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<210> 3067  
<211> 645  
<212> DNA  
<213> Homo sapiens

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240  
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420



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<210> 3068

<211> 204

<212> PRT

<213> Homo sapiens

<400> 3068

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 Ser Pro Asn Arg Ala Gln Gly Pro Ser Xaa Val Leu Val His Gln Ala  
 35 40 45  
 Arg Glu Pro Thr Ala Gly Ser Pro Pro Cys Ser Leu Pro Arg Pro Asp  
 50 55 60  
 Leu Gln Pro Pro Ser Thr Pro Pro Pro Val His Lys Glu Gln Lys  
 65 70 75 80  
 Lys Ser Asp Pro Pro Pro Pro Pro Gly Lys Phe Lys Ser Phe Leu  
 85 90 95  
 Pro Pro Arg Ser Pro Gly Asn Ser Ala Leu Gly Pro Arg Arg Gly Trp  
 100 105 110  
 Gly Trp Ile Ala Ala Gly Gly Ala Pro Ala Met Pro Arg Pro Pro Ser  
 115 120 125  
 Gly Ala Gly Asp Arg Glu Ile Pro Arg Asp Leu Ala Cys Ala Pro Tyr  
 130 135 140  
 Pro Pro Pro Gly Ala Gly Arg Gly Ser Glu His Arg Ser Ala Pro Gly  
 145 150 155 160  
 Arg Arg Cys Gly Ser Lys Glu Pro Glu Ala Ala Ser Arg Pro Pro  
 165 170 175  
 Ser Pro Ala Glu Glu Glu Pro Pro Pro Val Ser Ala Glu Glu Thr Pro  
 180 185 190  
 Pro Ser Pro Ala Pro Pro Pro Arg Gly Glu Trp Gly  
 195 200

<210> 3069

<211> 1561

<212> DNA

<213> Homo sapiens

<400> 3069

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 180

ctgggtttgt taggagtatt ttgatttttc tatttttacg ctgggaaaaa aattaaaaa  
240  
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300  
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360  
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420  
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&lt;210&gt; 3070

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 3070  
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 Leu Gly Ser Ser Val Leu His Trp Gly Tyr Leu Pro Ser Lys Asp Asp  
 35 40 45  
 Tyr Phe Gln Val Leu Cys Val Ala Asp Val Val Ile Ser Thr Ala Lys  
 50 55 60  
 His Glu Phe Phe Gly Val Ala Met Leu Glu Ala Val Tyr Cys Gly Cys  
 65 70 75 80  
 Tyr Pro Leu Cys Pro Lys Asp Leu Val Tyr Pro Glu Ile Phe Pro Ala  
 85 90 95  
 Glu Tyr Leu Tyr Ser Thr Pro Glu Gln Leu Ser Lys Arg Leu Gln Asn  
 100 105 110  
 Phe Cys Lys Arg Pro Asp Ile Ile Arg Lys His Leu Tyr Lys Gly Glu  
 115 120 125  
 Ile Ala Pro Phe Ser Trp Ala Ala Leu His Gly Lys Phe Arg Ser Leu  
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<210> 3071

<211> 3343

<212> DNA

<213> Homo sapiens

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2400

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<210> 3072

<211> 349

<212> PRT

<213> Homo sapiens

<400> 3072

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 Lys Glu Ser Arg Gly Leu Arg Gln Gln Gly Thr Ser Val Ala Gln Ser  
 35 40 45  
 Gly Ala Gln Ala Pro Gly Arg Ala His Arg Cys Ala His Cys Arg Arg  
 50 55 60  
 His Phe Pro Gly Trp Val Ala Leu Trp Leu His Thr Arg Arg Cys Gln  
 65 70 75 80  
 Ala Arg Leu Pro Leu Pro Cys Pro Glu Cys Gly Arg Arg Phe Arg His  
 85 90 95  
 Ala Pro Phe Leu Ala Leu His Arg Gln Val His Ala Ala Thr Pro  
 100 105 110  
 Asp Leu Gly Phe Ala Cys His Leu Cys Gly Gln Ser Phe Arg Gly Trp

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      115      120      125
Val Ala Leu Val Leu His Leu Arg Ala His Ser Ala Ala Lys Arg Pro
  130      135      140
Ile Ala Cys Pro Lys Cys Glu Arg Arg Phe Trp Arg Arg Lys Gln Leu
  145      150      155      160
Arg Ala His Leu Arg Arg Cys His Pro Pro Ala Pro Glu Ala Arg Pro
      165      170      175
Phe Ile Cys Gly Asn Cys Gly Arg Ser Phe Ala Gln Trp Asp Gln Leu
      180      185      190
Val Ala His Lys Arg Val His Val Ala Glu Ala Leu Glu Glu Ala Ala
      195      200      205
Ala Lys Ala Leu Gly Pro Arg Pro Arg Gly Arg Pro Ala Val Thr Ala
      210      215      220
Pro Arg Pro Gly Gly Asp Ala Val Asp Arg Pro Phe Gln Cys Ala Cys
  225      230      235      240
Cys Gly Lys Arg Phe Arg His Lys Pro Asn Leu Ile Ala His Arg Arg
      245      250      255
Val His Thr Gly Glu Arg Pro His Gln Cys Pro Glu Cys Gly Lys Arg
      260      265      270
Phe Thr Asn Lys Pro Tyr Leu Thr Ser His Arg Arg Ile His Thr Gly
      275      280      285
Glu Lys Pro Tyr Pro Cys Lys Glu Cys Gly Arg Arg Phe Arg His Lys
      290      295      300
Pro Asn Leu Leu Ser His Ser Lys Ile His Xaa Ser Asp Pro Arg Gly
  305      310      315      320
Arg Pro Arg Pro Pro Pro Ala Arg Gly Ala Pro Ser Cys Gln Pro Ala
      325      330      335
Pro Arg Ser Pro Arg Pro Ser Pro Pro Arg Arg Tyr Leu
      340      345

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&lt;210&gt; 3073

&lt;211&gt; 791

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3073

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120
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180
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240
atctggtcgg tggagtctga tgaccctaac ttggctgctg tcttgagag gctggtggac
300
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360
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420
gagcagtcca cacaggaaga cgtgtcttca gaagatgaag atgaggagat gcctgaggac
480
acagaagact tagatcacta tgaaatgaaa gaggaagagc cagctgaggg caagaaatct
540

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 660  
 aaggagctcc agggatatat taccgnttca cagagtttca aaggcggaaa ctatgncagt  
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 791

<210> 3074

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3074

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		20					25					30			
Ser	Cys	Glu	Phe	Leu	Leu	Ala	Gly	Ala	Gly	Gly	Ala	Gly	Ala	Gly	Ala
		35				40					45				
Ala	Pro	Gly	Pro	His	Leu	Pro	Pro	Arg	Gly	Ser	Val	Pro	Gly	Asp	Pro
	50				55					60					
Val	Arg	Ile	His	Cys	Asn	Ile	Thr	Glu	Ser	Tyr	Pro	Ala	Val	Pro	Pro
65				70					75					80	
Ile	Trp	Ser	Val	Glu	Ser	Asp	Asp	Pro	Asn	Leu	Ala	Ala	Val	Leu	Glu
		85						90					95		
Arg	Leu	Val	Asp	Ile	Lys	Lys	Gly	Asn	Thr	Leu	Leu	Leu	Gln	His	Leu
	100						105						110		
Lys	Arg	Ile	Ile	Ser	Asp	Leu	Cys	Lys	Leu	Tyr	Asn	Leu	Pro	Gln	His
	115					120					125				
Pro	Asp	Val	Glu	Met	Leu	Asp	Gln	Pro	Leu	Pro	Ala	Glu	Gln	Cys	Thr
	130				135					140					
Gln	Glu	Asp	Val	Ser	Ser	Glu	Asp	Glu	Asp	Glu	Glu	Met	Pro	Glu	Asp
145				150					155					160	
Thr	Glu	Asp	Leu	Asp	His	Tyr	Glu	Met	Lys	Glu	Glu	Glu	Pro	Ala	Glu
		165					170						175		
Gly	Lys	Lys	Ser	Glu	Asp	Asp	Gly	Ile	Gly	Lys	Glu	Asn	Leu	Ala	Ile
	180						185						190		
Leu	Glu	Lys	Ile	Lys	Lys	Asn	Gln	Arg	Gln	Asp	Tyr	Leu	Asn	Gly	Ala
	195					200					205				
Val	Ser	Gly	Ser	Val	Gln	Ala	Thr	Asp	Arg	Leu	Met	Lys	Glu	Leu	Gln
	210				215					220					
Gly	Tyr	Ile	Thr	Xaa	Ser	Gln	Ser	Phe	Lys	Gly	Gly	Asn	Tyr	Xaa	Ser
225				230						235				240	
Ser	Asn	Ser	Trp	Asn	Asp	Ser	Leu	Tyr	Gly	Trp	Asp	Val	Gln	Leu	Leu
		245					250						255		
Lys	Val	Asp	Gln	Gly	Ser	Val									
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<210> 3075

<211> 603

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3075

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120
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180
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240
gatgtgaaga atgagggtcaa catcatgaac cagctcagcc acgtaaactt gatccaactt
300
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420
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600
ccg
603

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&lt;210&gt; 3076

&lt;211&gt; 201

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3076

```

Pro Leu Gly Gly Lys Asn Phe Leu Lys Lys Met Val Gly Lys Asn Pro
1           5           10          15
Pro Pro Pro Pro Phe Phe Ser Pro Val Gly Ala Lys Lys Lys Asn
20          25          30
Val Gly Pro Gln Lys Lys Lys Lys Lys Lys Lys Val Leu Gly Gly
35          40          45
Gly Arg Phe Gly Gln Val His Arg Cys Thr Glu Lys Ser Thr Gly Leu
50          55          60
Ala Leu Ala Ala Lys Ile Ile Lys Val Lys Asn Val Lys Asp Arg Glu
65          70          75          80
Asp Val Lys Asn Glu Val Asn Ile Met Asn Gln Leu Ser His Val Asn
85          90          95
Leu Ile Gln Leu Tyr Asp Ala Phe Glu Ser Lys Ser Ser Phe Thr Leu
100         105         110
Ile Met Glu Tyr Val Asp Gly Gly Glu Leu Phe Asp Arg Ile Thr Asp
115         120         125
Glu Lys Tyr His Leu Thr Glu Leu Asp Val Val Leu Phe Thr Arg Gln
130         135         140
Ile Cys Glu Gly Val His Tyr Leu His Gln His Tyr Ile Leu His Leu
145         150         155         160
Asp Leu Lys Pro Glu Asn Ile Leu Cys Val Ser Gln Thr Gly His Gln

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	165		170		175
Ile Lys Ile Ile Asp Phe Gly Leu Ala Arg Arg Tyr Lys Pro Arg Glu					
	180		185		190
Lys Leu Lys Val Asn Phe Gly Thr Pro					
	195		200		

&lt;210&gt; 3077

&lt;211&gt; 1377

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3077

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240
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1140
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1200
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1260

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 1377

<210> 3078

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3078

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 20 25 30  
 Val Gly Ala Leu Pro Arg Gly Pro Arg Gln Asn Ser Arg Leu Gly Leu  
 35 40 45  
 Pro Leu Leu Leu Met Pro Glu Glu Ala Arg Leu Leu Ala Glu Ile Gly  
 50 55 60  
 Ala Val Thr Leu Val Ser Ala Pro Arg Pro Asp Ser Arg His His Ser  
 65 70 75 80  
 Leu Ala Leu Thr Ser Phe Lys Arg Gln Gln Glu Glu Ser Phe Gln Glu  
 85 90 95  
 Gln Ser Ala Leu Ala Ala Glu Ala Arg Glu Thr Arg Arg Gln Glu Leu  
 100 105 110  
 Leu Glu Lys Ile Thr Glu Gly Gln Ala Ala Lys Lys Gln Lys Leu Glu  
 115 120 125  
 Gln Ala Ser Gly Ala Ser Ser Ser Gln Glu Ala Gly Ser Ser Gln Ala  
 130 135 140  
 Ala Lys Glu Asp Glu Thr Ser Asp Gly Gln Ala Ser Gly Glu Gln Glu  
 145 150 155 160  
 Glu Ala Gly Pro Ser Ser Ser Gln Ala Gly Pro Ser Asn Gly Val Ala  
 165 170 175  
 Pro Leu Pro Arg Ser Ala Leu Leu Val Gln Leu Ala Thr Ala Arg Pro  
 180 185 190  
 Arg Pro Val Lys Ala Arg Pro Leu Asp Trp Arg Val Gln Ser Lys Asp  
 195 200 205  
 Trp Pro His Ala Gly Arg Pro Ala His Glu Leu Arg Tyr Ser Ile Tyr  
 210 215 220  
 Arg Asp Leu Trp Glu Arg Gly Phe Phe Leu Ser Ala Ala Gly Lys Phe  
 225 230 235 240  
 Gly Gly Asp Phe Leu Val Tyr Pro Gly Asp Pro Leu Arg Phe His Ala  
 245 250 255  
 His Tyr Ile Ala Gln Cys Trp Ala Pro Glu Asp Thr Ile Pro Leu Gln  
 260 265 270  
 Asp Leu Val Ala Ala Gly Arg Leu Gly Thr Ser Val Arg Lys Thr Leu  
 275 280 285  
 Leu Leu Cys Ser Pro Gln Pro Asp Gly Lys Val Val Tyr Thr Ser Leu  
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 Gln Trp Ala Ser Leu Gln  
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<210> 3079

<211> 1785

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3079

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120  
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180  
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240  
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360  
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480  
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540  
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gatgcagacc ctgaagtttg caagaaaatg tgcaagagaa acgagttcga gtctgtcctg  
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780  
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<210> 3080

<211> 500

<212> PRT

<213> Homo sapiens

<400> 3080

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Cys	Ser	Pro	Thr	Pro	Pro	Pro	Val	Pro	Arg	Arg	Gly	Thr	His	Thr	Thr
			20					25					30		
Val	Ser	Gln	Val	Gln	Pro	Pro	Pro	Ser	Lys	Ala	Ser	Ala	Pro	Glu	Pro
		35					40					45			
Pro	Ala	Glu	Glu	Glu	Val	Ala	Thr	Gly	Thr	Thr	Ser	Ala	Ser	Asp	Asp
	50					55					60				
Leu	Glu	Ala	Leu	Gly	Thr	Leu	Ser	Leu	Gly	Thr	Thr	Glu	Glu	Lys	Ala
65				70					75					80	
Ala	Ala	Glu	Ala	Ala	Val	Pro	Arg	Thr	Ile	Gly	Ala	Glu	Leu	Met	Glu
			85					90					95		
Leu	Val	Arg	Arg	Asn	Thr	Gly	Leu	Ser	His	Glu	Leu	Cys	Arg	Val	Ala
		100					105					110			
Ile	Gly	Ile	Ile	Val	Gly	His	Ile	Gln	Ala	Ser	Val	Pro	Ala	Ser	Ser
	115					120						125			
Pro	Val	Met	Glu	Gln	Val	Leu	Leu	Ser	Leu	Val	Glu	Gly	Lys	Asp	Leu
	130					135					140				
Ser	Met	Ala	Leu	Pro	Ser	Gly	Gln	Val	Cys	His	Asp	Gln	Gln	Arg	Leu
145				150					155					160	
Glu	Val	Ile	Phe	Ala	Asp	Leu	Ala	Arg	Arg	Lys	Asp	Asp	Ala	Gln	Gln
			165					170					175		
Arg	Ser	Trp	Ala	Leu	Tyr	Glu	Asp	Glu	Gly	Val	Ile	Arg	Cys	Tyr	Leu
		180					185						190		
Glu	Glu	Leu	Leu	His	Ile	Leu	Thr	Asp	Ala	Asp	Pro	Glu	Val	Cys	Lys
	195					200					205				
Lys	Met	Cys	Lys	Arg	Asn	Glu	Phe	Glu	Ser	Val	Leu	Ala	Leu	Val	Ala
	210				215						220				
Tyr	Tyr	Gln	Met	Glu	His	Arg	Ala	Ser	Leu	Arg	Leu	Leu	Leu	Leu	Lys
225				230					235					240	
Cys	Phe	Gly	Ala	Met	Cys	Ser	Leu	Asp	Ala	Ala	Ile	Ile	Ser	Thr	Leu
			245					250					255		
Val	Ser	Ser	Val	Leu	Pro	Val	Glu	Leu	Ala	Arg	Asp	Met	Gln	Thr	Asp
		260						265					270		
Thr	Gln	Asp	His	Gln	Lys	Leu	Cys	Tyr	Ser	Ala	Leu	Ile	Leu	Ala	Met
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Val	Phe	Ser	Met	Gly	Glu	Ala	Val	Pro	Tyr	Ala	His	Tyr	Glu	His	Leu

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Pro Leu Asp Thr Thr Glu Gln Leu Pro Asp Leu Cys Val Asn Leu Leu
      325      330      335
Leu Ala Leu Asn Leu His Leu Pro Ala Ala Asp Gln Asn Val Ile Met
      340      345      350
Ala Ala Leu Ser Lys His Ala Asn Val Lys Ile Phe Ser Glu Lys Leu
      355      360      365
Leu Leu Leu Leu Asn Arg Gly Asp Asp Pro Val Arg Ile Phe Lys His
      370      375      380
Glu Pro Gln Pro Pro His Ser Val Leu Lys Phe Leu Gln Asp Val Phe
385      390      395      400
Gly Ser Pro Ala Thr Ala Ala Ile Phe Tyr His Thr Asp Met Met Ala
      405      410      415
Leu Ile Asp Ile Thr Val Arg His Ile Ala Asp Leu Ser Pro Gly Asp
      420      425      430
Lys Gly Pro Phe Gly Ala Gly Gln Arg Pro Trp Pro Gly Val Pro Arg
      435      440      445
Leu Leu Glu Pro Gly Ser Thr Pro Ser Arg Glu Pro His Pro Val Glu
      450      455      460
Arg Ser Gly Val Pro Ala Leu Thr Ser Ser Trp Ala Ser Gly Cys Pro
465      470      475      480
Arg Pro Leu His Pro Ala Leu Gln Leu Val Ile Asp Ser Ala Phe Gly
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Gly Arg Ser Val
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<210> 3081  
 <211> 1902  
 <212> DNA  
 <213> Homo sapiens

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<400> 3081
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120
caaagcattc cgaccttcta cttccccaga ggacgcccgc aggactccgt caacgtggat
180
gccgtcatca gcaagatcga gagcaccttc gcccggttcc cccacgagag ggccaccatg
240
gatgacatgg gcctggtggc caaggcctgc ggctgcccc tctactggaa ggggcccgtc
300
ttctatggcg ccggcgggga gcgcacgggc tccgtgtccg tccacaagtt cgtcgccatg
360
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420
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480
aacacgcacc cggggctgtc gttcctgaag gaggcgtccg agttccactc gcgctacatc
540
accacgggtc tccagcggt cttctacgcc gtgaaccggt cctggtccgg caggatcacc
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tgcgccgagc tgcggaggag ctccctcctg cagaatgtgg cgctgctgga ggaggaggcg  
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 720  
 ttctgggagc tggacacgga ccacgacctg ctcatcgacg cggacgacct ggcgcggcac  
 780  
 aatgaccacg ccctttctac caagatgata gacaggatct tctcaggagc agtcacacga  
 840  
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 900  
 tctgaggaag acaaaaaaac accgaccagc atcgagtact ggttccgctg catggacctg  
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 1020  
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 1080  
 gacctgggtc agccgaggac tgaagggaag atcacgtgc aggacctgaa gcgctgcaag  
 1140  
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 1200  
 aaagagcaga tctccctgct cagggacggt gacagcggcg gccccgagct ctcggactgg  
 1260  
 gagaagtacg cggccgagga gtacgacatc ctggtggccg aggagaccgt gggagagccc  
 1320  
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 1380  
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 1440  
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 1560  
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 1620  
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 1680  
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 1740  
 gacccggcct gggttccggg gcctgcgtct gtggaaaggg tccatgtgag cacaacgggtg  
 1800  
 accggcggt cccggcgcc tcagtcctgg acaggagcct ccaccacagg ctgtgtgaat  
 1860  
 gttttgtgta aacgtacaaa accgtttctg gcgatcacga aa  
 1902

&lt;210&gt; 3082

&lt;211&gt; 414

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3082

Met Asp Asp Met Gly Leu Val Ala Lys Ala Cys Gly Cys Pro Leu Tyr

1 5 10 15

Trp Lys Gly Pro Leu Phe Tyr Gly Ala Gly Gly Glu Arg Thr Gly Ser

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      20      25      30
Val Ser Val His Lys Phe Val Ala Met Trp Arg Lys Ile Leu Gln Asn
      35      40      45
Cys His Asp Asp Ala Ala Lys Phe Val His Leu Leu Met Ser Pro Gly
      50      55      60
Cys Asn Tyr Leu Val Gln Glu Asp Phe Val Pro Phe Leu Gln Asp Val
      65      70      75      80
Val Asn Thr His Pro Gly Leu Ser Phe Leu Lys Glu Ala Ser Glu Phe
      85      90      95
His Ser Arg Tyr Ile Thr Thr Val Ile Gln Arg Ile Phe Tyr Ala Val
      100      105      110
Asn Arg Ser Trp Ser Gly Arg Ile Thr Cys Ala Glu Leu Arg Arg Ser
      115      120      125
Ser Phe Leu Gln Asn Val Ala Leu Leu Glu Glu Glu Ala Asp Ile Asn
      130      135      140
Gln Leu Thr Glu Phe Phe Ser Tyr Glu His Phe Tyr Val Ile Tyr Cys
      145      150      155      160
Lys Phe Trp Glu Leu Asp Thr Asp His Asp Leu Leu Ile Asp Ala Asp
      165      170      175
Asp Leu Ala Arg His Asn Asp His Ala Leu Ser Thr Lys Met Ile Asp
      180      185      190
Arg Ile Phe Ser Gly Ala Val Thr Arg Gly Arg Lys Val Gln Lys Glu
      195      200      205
Gly Lys Ile Ser Tyr Ala Asp Phe Val Trp Phe Leu Ile Ser Glu Glu
      210      215      220
Asp Lys Lys Thr Pro Thr Ser Ile Glu Tyr Trp Phe Arg Cys Met Asp
      225      230      235      240
Leu Asp Gly Asp Gly Ala Leu Ser Met Phe Glu Leu Glu Tyr Phe Tyr
      245      250      255
Glu Glu Gln Cys Arg Arg Leu Asp Ser Met Ala Ile Glu Ala Leu Pro
      260      265      270
Phe Gln Asp Cys Leu Cys Gln Met Leu Asp Leu Val Lys Pro Arg Thr
      275      280      285
Glu Gly Lys Ile Thr Leu Gln Asp Leu Lys Arg Cys Lys Leu Ala Asn
      290      295      300
Val Phe Phe Asp Thr Phe Phe Asn Ile Glu Lys Tyr Leu Asp His Glu
      305      310      315      320
Gln Lys Glu Gln Ile Ser Leu Leu Arg Asp Gly Asp Ser Gly Gly Pro
      325      330      335
Glu Leu Ser Asp Trp Glu Lys Tyr Ala Ala Glu Glu Tyr Asp Ile Leu
      340      345      350
Val Ala Glu Glu Thr Val Gly Glu Pro Trp Glu Asp Gly Phe Glu Ala
      355      360      365
Glu Leu Ser Pro Val Glu Gln Lys Leu Ser Ala Leu Arg Ser Pro Leu
      370      375      380
Ala Gln Arg Pro Phe Phe Glu Ala Pro Ser Pro Leu Gly Ala Val Asp
      385      390      395      400
Leu Tyr Glu Tyr Ala Cys Gly Asp Glu Asp Leu Glu Pro Leu
      405      410

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<210> 3083  
 <211> 610  
 <212> DNA  
 <213> Homo sapiens

<400> 3083  
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 120  
 gactgggcag gccgggcccc ggcaactggt ggtgacagtc atacttcgtg gagcccagcg  
 180  
 agcatccccg gcaagcacta ccaggctgtg ggtctgcacc tctggaaggt agagaagcgg  
 240  
 cgggtcaatc tgcctagggt cctgtccatg cccccgtgg ctggcaccgc gtgccatgca  
 300  
 tacgaccggg aggtccacct gcgttgtag ctctaccgg gctactacct ggctgtcccc  
 360  
 agcaccttcc tgaaggacgc gccaggggag ttcctgtccc gagtcttctc taccgggcga  
 420  
 gtctccctta ggtgagagga accgcgcagt gctgctggct ctccgaggcc acaggccctt  
 480  
 ccaaggcagg atttgggcac tttccctctg tggttggcag gtgtccatgt gggaactgag  
 540  
 gccaccggga acctgctgcc agcgccctcc catgtttgtc ttcttggcag cgccatcagg  
 600  
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 610

<210> 3084  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<400> 3084  
 Xaa Arg Pro Ser Cys Trp Glu Pro Val Arg Pro Ser Gly Ser Ser His  
 1 5 10 15  
 Leu Ser Trp His Arg Gly Pro Pro Cys Glu Val Tyr Ile Ala Val Leu  
 20 25 30  
 Gln Arg Ser Arg Leu His Ala Ala Asp Trp Ala Gly Arg Ala Arg Ala  
 35 40 45  
 Leu Val Gly Asp Ser His Thr Ser Trp Ser Pro Ala Ser Ile Pro Gly  
 50 55 60  
 Lys His Tyr Gln Ala Val Gly Leu His Leu Trp Lys Val Glu Lys Arg  
 65 70 75 80  
 Arg Val Asn Leu Pro Arg Val Leu Ser Met Pro Pro Val Ala Gly Thr  
 85 90 95  
 Ala Cys His Ala Tyr Asp Arg Glu Val His Leu Arg Cys Glu Leu Ser  
 100 105 110  
 Pro Gly Tyr Tyr Leu Ala Val Pro Ser Thr Phe Leu Lys Asp Ala Pro  
 115 120 125  
 Gly Glu Phe Leu Leu Arg Val Phe Ser Thr Gly Arg Val Ser Leu Arg  
 130 135 140

<210> 3085  
 <211> 1080  
 <212> DNA  
 <213> Homo sapiens



<400> 3085  
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 cttctccaat aagaagatat tcagatattg tagtaccggt cttgttaatg gcagccattt  
 120  
 caaaagataa gaaaatggaa attaaggga atctgttcag caacaaagat cttgaggaat  
 180  
 tatgcagaca tatcaacaac agaaaccaag cagcacagca ttctcagaag cagtctactg  
 240  
 agctcttcca gtgcatttac ttcaaagaca aagaccctgc caccgaggag cgttgcatat  
 300  
 ctgacggagt tatttattca attagaacaa atgggtgtgt tctatttata ccaagggttg  
 360  
 ggattaaagg tgctgcttat ctaaaaaata aagatggttt agtcatttca tggggccag  
 420  
 atagctgttc tgaatggaaa ccaggatccc ttcaacgatt tcaaaacaaa attacctcta  
 480  
 ctacaacaga tggggaatct gttacgttcc atttgtttga ccatgtaacc gtaagaatat  
 540  
 ccatacaggc ctcacgttgc cattctgata caatcagact tgaataatt agtaacaaac  
 600  
 catacaagat accaaatata gaactttatc atcagagtgc ccccttgctg aagagttagt  
 660  
 tagtgaaaga agtaactaaa tctgtggaag aagctcagct tgccaagaa gtcaaagtaa  
 720  
 acatcattca ggaggaatat caagaatata gccaaacaaa gggaaggagc ctatacacac  
 780  
 ttctagagga gatacgggac ctactctcc tggatgttcc aaacaattat ggaatatgag  
 840  
 aggtctctac ttactaaga gctgtcatat gtgaatgttt tacagtcttt tcaaaactta  
 900  
 catttaagt gtgtcactca gtgctctagt cgatcaggac tgggtagcta tttcgcatat  
 960  
 atgtanaatg ttctcagccg ggcacggtgg ctcacgcctg taacccagc actttgggag  
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<210> 3086  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 3086  
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 Ala Tyr Met Xaa Asn Val Leu Ser Arg Ala Arg Trp Leu Thr Pro Val  
 20 25 30  
 Thr Pro Ala Leu Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu  
 35 40 45  
 Ile Glu Thr Ile Leu Ala Asn Thr Val Lys  
 50 55

<210> 3087  
<211> 2329  
<212> DNA  
<213> Homo sapiens

<400> 3087  
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120  
gtggaggtgg agccgcccc agatcgcca gtccgagcgt gccggacaca gcagccggaa  
180  
atggagcgca cccatattca gcaactcctg gaacacttcc tccgccagct tcagagaaaa  
240  
gatccccatg gatTTTTTgc ttttcctgtc acggatgcaa ttgctcctgg atattcaatg  
300  
ataataaaac atccccatgga ttttggcacc atgaaagaca aaattgtagc taatgaatac  
360  
aagtcagtta cggaaatttaa ggcagatttc aagctgatgt gtgataatgc aatgacatac  
420  
aataggccag ataccgtgta ctacaagttg gcgaagaaga tccttcacgc aggctttaag  
480  
atgatgagca aacaggcgac tcttttgggc aatgaagata cagctgttga ggaacctgtc  
540  
cctgaagttg taccagtaca agtagaaact gccaaagaaat ccaaaaagcc gagtagagaa  
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720  
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780  
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900  
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960  
cagtatttgg cgacttgaag tcggacgaga tggagctgct ctactcagcc tacggagatg  
1020  
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1080  
gcaagaaagt ggtggacgac ctctgggacc agatcacagg cggagaccac tctaggacgc  
1140  
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gggacaccct aggagacagc agcagctctg ttctggagtt catgtcgatg aagtcctatc  
1260  
ccgacgtttc tgttgatata tccatgctca gctctctggg gaaggtgaag aaggagctgg  
1320  
accctgacga cagccatttg aacttgatg agacgacgaa gctcctgcag gacctgcacg  
1380  
aagcacaggc ggagcgggc ggctctcggc cgtcgtccaa cctcagctcc ctgtccaacg  
1440

cctccgagag ggaccagcac cacctgggaa gcccttctcg cctgagtgtc ggggagcagc  
 1500  
 cagacgtcac ccacgacccc tatgagtttc ttcagtctcc agagcctgcg gcctctgcca  
 1560  
 agacctaaact ctgaccacc ttcagctctt ttattttatt tttttagttt tttttgcac  
 1620  
 gtgtagagtt tttgtcatca gacaaggact ttgatcctgt cccctttggc atgcgggaag  
 1680  
 cagccgcggg gaggtaatga attgtctgtg gtatcatgtc agcagagtct ccaagcccca  
 1740  
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 1800  
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 1860  
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 1920  
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 1980  
 tgtgggtcca gcccttggtt ctgccagtgt agacacctct gtctgcccc ctgtcctggg  
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 2160  
 ggggagcaca gggccaggct ggggtgagga gagtcccct gttttctgtt taattgatga  
 2220  
 gcctgggaaa ggagtgtgtt ctgctgtccc gttacagtgg agcgttccgt gtccataaaa  
 2280  
 cgttttctaa ctgggaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 2329

<210> 3088

<211> 280

<212> PRT

<213> Homo sapiens

<400> 3088

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 Asp Asp Phe Asp Pro Gly Lys Lys Val Glu Val Glu Pro Pro Asp  
 35 40 45  
 Arg Pro Val Arg Ala Cys Arg Thr Gln Gln Pro Glu Met Glu Arg Thr  
 50 55 60  
 His Ile Gln Gln Leu Leu Glu His Phe Leu Arg Gln Leu Gln Arg Lys  
 65 70 75 80  
 Asp Pro His Gly Phe Phe Ala Phe Pro Val Thr Asp Ala Ile Ala Pro  
 85 90 95  
 Gly Tyr Ser Met Ile Ile Lys His Pro Met Asp Phe Gly Thr Met Lys  
 100 105 110  
 Asp Lys Ile Val Ala Asn Glu Tyr Lys Ser Val Thr Glu Phe Lys Ala  
 115 120 125  
 Asp Phe Lys Leu Met Cys Asp Asn Ala Met Thr Tyr Asn Arg Pro Asp

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      130              135              140
Thr Val Tyr Tyr Lys Leu Ala Lys Lys Ile Leu His Ala Gly Phe Lys
145              150              155              160
Met Met Ser Lys Gln Ala Ala Leu Leu Gly Asn Glu Asp Thr Ala Val
      165              170              175
Glu Glu Pro Val Pro Glu Val Val Pro Val Gln Val Glu Thr Ala Lys
      180              185              190
Lys Ser Lys Lys Pro Ser Arg Glu Val Ile Ser Cys Met Phe Glu Pro
      195              200              205
Glu Gly Asn Ala Cys Ser Leu Thr Asp Ser Thr Ala Glu Glu His Val
      210              215              220
Leu Ala Leu Val Glu His Ala Ala Asp Glu Ala Arg Asp Arg Ile Asn
225              230              235              240
Arg Phe Leu Pro Gly Gly Lys Met Gly Tyr Leu Lys Arg Asn Gly Asp
      245              250              255
Gly Ser Leu Leu Tyr Ser Val Val Asn Thr Ala Glu Pro Asn Ala Asp
      260              265              270
Glu Glu Glu Thr His Pro Val Thr
      275              280

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<210> 3089  
 <211> 722  
 <212> DNA  
 <213> Homo sapiens

<400> 3089  
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 120  
 gcccttacaa aggcggcaga ggggtggatta tcttcacctg aattttcaga gctctgtatt  
 180  
 tggttaggct ctcaaataaa atcattatgc aacttggaag aaagtatcac gtctgctggg  
 240  
 agagatgacc tagagagctt ccagcttgag ataagtgggt ttttaaaaga gatggcctgt  
 300  
 ccatactcgg tactcgtctc aggagacatt aaagagcgcc tcacaaagaa ggatgactgc  
 360  
 ttgaaacttc tgttggtttt aagtacagaa cttcaagctt tacaatatt acagaacaag  
 420  
 aaacataaaa attctcaatt agataaaaat agtgaagttt atcaggaagt tcaagctatg  
 480  
 ttgtatacac ttggtatacc caagtcaaca acttctgaca ttccgcatat gctaaaccaa  
 540  
 gtggaatcaa aggtgaaaga tattctctca aagggtccaga aaaatcatgt gggaaaacca  
 600  
 ctactgaaaa tggatttaaa ttcagaacag gcggaacaac tggaaagaat caatgatgct  
 660  
 ctttcctgtg aatatgagtg ccgccgacga atgttaatga aacgattaga tgtgactgta  
 720  
 ca  
 722

<210> 3090

<211> 240  
 <212> PRT  
 <213> Homo sapiens

<400> 3090  
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 20 25 30  
 Lys Gly Pro Leu Leu Glu Glu Gln Ala Leu Thr Lys Ala Ala Glu Gly  
 35 40 45  
 Gly Leu Ser Ser Pro Glu Phe Ser Glu Leu Cys Ile Trp Leu Gly Ser  
 50 55 60  
 Gln Ile Lys Ser Leu Cys Asn Leu Glu Glu Ser Ile Thr Ser Ala Gly  
 65 70 75 80  
 Arg Asp Asp Leu Glu Ser Phe Gln Leu Glu Ile Ser Gly Phe Leu Lys  
 85 90 95  
 Glu Met Ala Cys Pro Tyr Ser Val Leu Val Ser Gly Asp Ile Lys Glu  
 100 105 110  
 Arg Leu Thr Lys Lys Asp Asp Cys Leu Lys Leu Leu Leu Phe Leu Ser  
 115 120 125  
 Thr Glu Leu Gln Ala Leu Gln Ile Leu Gln Asn Lys Lys His Lys Asn  
 130 135 140  
 Ser Gln Leu Asp Lys Asn Ser Glu Val Tyr Gln Glu Val Gln Ala Met  
 145 150 155 160  
 Phe Asp Thr Leu Gly Ile Pro Lys Ser Thr Thr Ser Asp Ile Pro His  
 165 170 175  
 Met Leu Asn Gln Val Glu Ser Lys Val Lys Asp Ile Leu Ser Lys Val  
 180 185 190  
 Gln Lys Asn His Val Gly Lys Pro Leu Leu Lys Met Asp Leu Asn Ser  
 195 200 205  
 Glu Gln Ala Glu Gln Leu Glu Arg Ile Asn Asp Ala Leu Ser Cys Glu  
 210 215 220  
 Tyr Glu Cys Arg Arg Arg Met Leu Met Lys Arg Leu Asp Val Thr Val  
 225 230 235 240

<210> 3091  
 <211> 333  
 <212> DNA  
 <213> Homo sapiens

<400> 3091  
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 120  
 cccagggcga cccctcttgc caagtgtccc aaaatgattg ctaaatgcct ggctcccca  
 180  
 ctctttgact ccattctcttg gttccctctt tctgctgcca gctccccga ctcttccctg  
 240  
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 300  
 ttccataccc atccctgcct ccttgctcgg ccg  
 333

<210> 3092  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 3092  
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 Ser Arg Lys Arg Glu Pro Arg Asp Gly Val Lys Glu Trp Gly Ser Gln  
 35 40 45  
 Ala Phe Ser Asn His Phe Gly Thr Leu Gly Arg Arg Gly Arg Pro Gly  
 50 55 60  
 Gly Thr Lys Gly Leu Gly Cys Ser Leu Ser Val Pro Asp Pro Cys Gln  
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 85 90 95  
 Phe Pro Ser Ala Pro Phe Thr Arg  
 100

<210> 3093  
 <211> 720  
 <212> DNA  
 <213> Homo sapiens

<400> 3093  
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 120  
 agggggcagc ctgtgggcag tgactctgtc tgtctttgga caggacaagg actgccatcc  
 180  
 accatggtga agctgggctg cagcttctct gggaagccag gtaaagacc tggggaccag  
 240  
 gatggggctg ccatggacag tgtgcctctg atcagccctc tggacatcag ccagctccag  
 300  
 ccgccactcc ctgaccaggt ggtcatcaag acacagacag aataccagct gtcctcccca  
 360  
 gaccagcaga atttcctga cctggagggc cagaggctga actgcagcca ccagaggaa  
 420  
 gggcgaggc tgcccaccgc acggatgatc gccttcgcca tggcgctact gggctgcgtg  
 480  
 ctgatcatgt acaaggccat ctggtacgac cagttcacct gcccgcagcg cttcctgctg  
 540  
 cggcacaaga tctgcagcc gctgaccctg gagatgtact acacggagat ggaccccgag  
 600  
 cgccaccgca gcatcctggc ggccatcggg gcctaccgc tgagccgcaa gcacggcacg  
 660  
 gagacgccc ggcctgggg ggacggctac cgcgagcca aggaggagcg caaggggccc  
 720

<210> 3094

<211> 179  
 <212> PRT  
 <213> Homo sapiens

<400> 3094  
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 Lys Thr Gln Thr Glu Tyr Gln Leu Ser Ser Pro Asp Gln Gln Asn Phe  
 50 55 60  
 Pro Asp Leu Glu Gly Gln Arg Leu Asn Cys Ser His Pro Glu Glu Gly  
 65 70 75 80  
 Arg Arg Leu Pro Thr Ala Arg Met Ile Ala Phe Ala Met Ala Leu Leu  
 85 90 95  
 Gly Cys Val Leu Ile Met Tyr Lys Ala Ile Trp Tyr Asp Gln Phe Thr  
 100 105 110  
 Cys Pro Asp Gly Phe Leu Leu Arg His Lys Ile Cys Thr Pro Leu Thr  
 115 120 125  
 Leu Glu Met Tyr Tyr Thr Glu Met Asp Pro Glu Arg His Arg Ser Ile  
 130 135 140  
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<210> 3095  
 <211> 519  
 <212> DNA  
 <213> Homo sapiens

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 420  
 cgcccagccc ctgctcgtcg cccctaccca ctatgccggg gacgccgagt ggctcagtga  
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<210> 3096  
 <211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 3096  
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 35 40 45  
 Ser Leu Ala Arg Arg Pro Asp Arg Arg Glu Arg Met Leu Ala Ser Leu  
 50 55 60  
 Trp Glu Met Glu Ile Ser Gly Arg Val Val Asp Ala Val Asp Gly Trp  
 65 70 75 80  
 Met Leu Asn Ser Ser Ala Ile Arg Asn Leu Gly Val Asp Leu Leu Pro  
 85 90 95  
 Gly Tyr Gln Asp Pro Tyr Ser Gly Arg Thr Leu Thr Lys Gly Glu Val  
 100 105 110  
 Gly Cys Phe Leu Ser His Tyr Ser Ile Trp Glu Glu Arg Ala Val Gln  
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<210> 3097  
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 <212> DNA  
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<210> 3098

<211> 1359

<212> PRT

<213> Homo sapiens

<400> 3098

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 20 25 30  
 Gly Pro Ser Arg Gly Ser Gly Gly Gly Arg Gly Gly Leu Arg Ala  
 35 40 45  
 Asp Gly Arg Ala Pro Gly Leu Arg Gly Leu Gly Ala Ala Pro His Cys  
 50 55 60  
 Pro Ala Gly Leu Gly Pro Gly Ala Met Ser Gly Gly Gly Gly Gly Gly

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65          70          75          80
Gly Ser Ala Pro Ser Arg Phe Ala Asp Tyr Phe Val Ile Cys Gly Leu
      85          90          95
Asp Thr Glu Thr Gly Leu Glu Pro Asp Glu Leu Ser Ala Leu Cys Gln
      100         105         110
Tyr Ile Gln Ala Ser Lys Ala Arg Asp Gly Ala Ser Pro Phe Ile Ser
      115         120         125
Ser Thr Thr Glu Gly Glu Asn Phe Glu Gln Thr Pro Leu Arg Arg Thr
      130         135         140
Phe Lys Ser Lys Val Leu Ala Arg Tyr Pro Glu Asn Val Glu Trp Asn
      145         150         155
Pro Phe Asp Gln Asp Ala Val Gly Met Leu Cys Met Pro Lys Gly Leu
      165         170         175
Ala Phe Lys Thr Gln Ala Asp Pro Arg Glu Pro Gln Phe His Ala Phe
      180         185         190
Ile Ile Thr Arg Glu Asp Gly Ser Arg Thr Phe Gly Phe Ala Leu Thr
      195         200         205
Phe Tyr Glu Glu Val Thr Ser Lys Gln Ile Cys Ser Ala Met Gln Thr
      210         215         220
Leu Tyr His Met His Asn Ala Glu Tyr Asp Val Leu His Ala Pro Pro
      225         230         235
Ala Asp Asp Arg Asp Gln Ser Ser Met Glu Asp Gly Glu Asp Thr Pro
      245         250         255
Val Thr Lys Leu Gln Arg Phe Asn Ser Tyr Asp Ile Ser Arg Asp Thr
      260         265         270
Leu Tyr Val Ser Lys Cys Ile Cys Leu Ile Thr Pro Met Ser Phe Met
      275         280         285
Lys Ala Cys Arg Ser Val Pro Gly Gln Leu His Gln Ala Val Thr Ser
      290         295         300
Pro Gln Pro Pro Pro Leu Pro Leu Glu Ser Tyr Ile Tyr Asn Val Leu
      305         310         315
Tyr Glu Val Pro Leu Pro Pro Pro Gly Arg Ser Leu Lys Phe Ser Gly
      325         330         335
Val Tyr Trp Pro Ile Ile Cys Gln Arg Pro Ser Thr Asn Glu Leu Pro
      340         345         350
Leu Phe Asp Phe Pro Val Lys Glu Val Phe Glu Leu Leu Gly Val Glu
      355         360         365
Asn Val Phe Gln Leu Phe Thr Cys Ala Leu Leu Glu Phe Gln Ile Leu
      370         375         380
Leu Tyr Ser Gln His Tyr Gln Arg Leu Met Thr Val Ala Glu Thr Ile
      385         390         395
Thr Ala Leu Met Phe Pro Phe Gln Trp Gln His Val Tyr Val Pro Ile
      405         410         415
Leu Pro Ala Ser Leu Leu His Phe Leu Asp Ala Pro Val Pro Tyr Leu
      420         425         430
Met Gly Leu His Ser Asn Gly Leu Asp Asp Arg Ser Lys Leu Glu Leu
      435         440         445
Pro Gln Glu Ala Asn Leu Cys Phe Val Asp Ile Asp Asn His Phe Ile
      450         455         460
Glu Leu Pro Glu Asp Leu Pro Gln Phe Pro Asn Lys Leu Glu Phe Val
      465         470         475
Gln Glu Val Ser Glu Ile Leu Met Ala Phe Gly Ile Pro Pro Glu Gly
      485         490         495
Asn Leu His Cys Ser Glu Ser Ala Ser Lys Leu Lys Arg Leu Arg Ala

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Leu His Ser Tyr Glu Leu Leu Lys Glu Asn Glu Thr Ile Ala Arg Leu
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Gln Ala Leu Val Lys Arg Thr Gly Val Ser Leu Glu Lys Leu Glu Val
      545      550      555      560
Arg Glu Asp Pro Ser Ser Asn Lys Asp Leu Lys Val Gln Cys Asp Glu
      565      570      575
Glu Glu Leu Arg Ile Tyr Gln Leu Asn Ile Gln Ile Arg Glu Val Phe
      580      585      590
Ala Asn Arg Phe Thr Gln Met Phe Ala Asp Tyr Glu Val Phe Val Ile
      595      600      605
Gln Pro Ser Gln Asp Lys Glu Ser Trp Phe Thr Asn Arg Glu Gln Met
      610      615      620
Gln Asn Phe Asp Lys Ala Ser Phe Leu Ser Asp Gln Pro Glu Pro Tyr
      625      630      635      640
Leu Pro Phe Leu Ser Arg Phe Leu Glu Thr Gln Met Phe Ala Phe Phe
      645      650      655
Ile Asp Asn Lys Ile Met Cys His Asp Asp Asp Lys Asp Pro Val
      660      665      670
Leu Arg Val Phe Asp Ser Arg Val Asp Lys Ile Arg Leu Leu Asn Val
      675      680      685
Arg Thr Pro Thr Leu Arg Thr Ser Met Tyr Gln Lys Cys Thr Thr Val
      690      695      700
Asp Glu Ala Glu Lys Ala Ile Glu Leu Arg Leu Ala Lys Ile Asp His
      705      710      715      720
Thr Ala Ile His Pro His Leu Leu Asp Met Lys Ile Gly Gln Gly Lys
      725      730      735
Tyr Glu Pro Gly Phe Phe Pro Lys Leu Gln Ser Asp Val Leu Cys Thr
      740      745      750
Gly Pro Ala Ser Asn Lys Trp Thr Lys Arg Asn Ala Pro Ala Gln Trp
      755      760      765
Arg Arg Lys Asp Arg Gln Lys Gln His Thr Glu His Leu Arg Leu Asp
      770      775      780
Asn Asp Gln Arg Glu Lys Tyr Ile Gln Glu Ala Arg Thr Met Gly Ser
      785      790      795      800
Thr Ile Arg Gln Pro Lys Leu Ser Asn Leu Ser Pro Ser Val Ile Ala
      805      810      815
Gln Thr Asn Trp Lys Phe Val Glu Gly Leu Leu Lys Glu Cys Arg Asn
      820      825      830
Lys Thr Lys Arg Met Leu Val Glu Lys Met Gly Arg Glu Ala Val Glu
      835      840      845
Leu Gly His Gly Glu Val Asn Ile Thr Gly Val Glu Glu Asn Thr Leu
      850      855      860
Ile Ala Ser Leu Cys Asp Leu Leu Glu Arg Ile Trp Ser His Gly Leu
      865      870      875      880
Gln Val Lys Gln Gly Lys Ser Ala Leu Trp Ser His Leu Leu His Tyr
      885      890      895
Gln Asp Asn Arg Gln Arg Lys Leu Thr Ser Gly Ser Leu Ser Thr Ser
      900      905      910
Gly Ile Leu Leu Asp Ser Glu Arg Lys Ser Asp Ala Ser Ser Leu
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Met Pro Pro Leu Arg Ile Ser Leu Ile Gln Asp Met Arg His Ile Gln

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Asn Ile Gly Glu Ile Lys Thr Asp Val Gly Lys Ala Arg Ala Trp Val
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Arg Leu Ser Met Glu Lys Lys Leu Leu Ser Arg His Leu Lys Gln Leu
      965      970      975
Leu Ser Asp His Glu Leu Thr Lys Lys Leu Tyr Lys Arg Tyr Ala Phe
      980      985      990
Leu Arg Cys Asp Asp Glu Lys Glu Gln Phe Leu Tyr His Leu Leu Ser
      995      1000      1005
Phe Asn Ala Val Asp Tyr Phe Cys Phe Thr Asn Val Phe Thr Thr Ile
      1010      1015      1020
Leu Ile Pro Tyr His Ile Leu Ile Val Pro Ser Lys Lys Leu Gly Gly
      1025      1030      1035      1040
Ser Met Phe Thr Ala Asn Pro Trp Ile Cys Ile Ser Gly Glu Leu Gly
      1045      1050      1055
Glu Thr Gln Ile Met Gln Ile Pro Arg Asn Val Leu Glu Met Thr Phe
      1060      1065      1070
Glu Cys Gln Asn Leu Gly Lys Leu Thr Thr Val Gln Ile Gly His Asp
      1075      1080      1085
Asn Ser Gly Leu Tyr Ala Lys Trp Leu Val Glu Tyr Val Met Val Arg
      1090      1095      1100
Asn Glu Ile Thr Gly His Thr Tyr Lys Phe Pro Cys Gly Arg Trp Leu
      1105      1110      1115      1120
Gly Lys Gly Met Asp Asp Gly Ser Leu Glu Arg Ile Leu Val Gly Glu
      1125      1130      1135
Leu Leu Thr Ser Gln Pro Glu Val Asp Glu Arg Pro Cys Arg Thr Pro
      1140      1145      1150
Pro Leu Gln Gln Ser Pro Ser Val Ile Arg Arg Leu Val Thr Ile Ser
      1155      1160      1165
Pro Asn Asn Lys Pro Lys Leu Asn Thr Gly Gln Ile Gln Glu Ser Ile
      1170      1175      1180
Gly Glu Ala Val Asn Gly Ile Val Lys His Phe His Lys Pro Glu Lys
      1185      1190      1195      1200
Glu Arg Gly Ser Leu Thr Leu Leu Leu Cys Gly Glu Cys Gly Leu Val
      1205      1210      1215
Ser Ala Leu Glu Gln Ala Phe Gln His Gly Phe Lys Ser Pro Arg Leu
      1220      1225      1230
Phe Lys Asn Val Phe Ile Trp Asp Phe Leu Glu Lys Ala Gln Thr Tyr
      1235      1240      1245
Tyr Glu Thr Leu Glu Lys Asn Glu Val Val Pro Glu Glu Asn Trp His
      1250      1255      1260
Thr Arg Ala Arg Asn Phe Cys Arg Phe Val Thr Ala Ile Asn Asn Thr
      1265      1270      1275      1280
Pro Arg Asn Ile Gly Lys Asp Gly Lys Phe Gln Met Leu Val Cys Leu
      1285      1290      1295
Gly Ala Arg Asp His Leu Leu His His Trp Ile Ala Leu Leu Ala Asp
      1300      1305      1310
Cys Pro Ile Thr Ala His Met Tyr Glu Asp Val Ala Leu Ile Lys Asp
      1315      1320      1325
His Thr Leu Val Asn Ser Leu Ile Arg Val Leu Gln Thr Leu Gln Glu
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Phe Asn Ile Thr Leu Glu Thr Ser Leu Val Lys Gly Ile Asp Ile
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 <211> 1001  
 <212> DNA  
 <213> Homo sapiens

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<210> 3100  
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 <212> PRT  
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 Phe Thr Leu Pro Phe Trp Ala Val Asn Ala Val His Gly Trp Val Leu  
 35 40 45  
 Gly Lys Ile Met Cys Lys Ile Thr Ser Ala Leu Tyr Thr Leu Asn Phe

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Val Ser Gly Met Gln Phe Leu Ala Cys Ile Ser Ile Asp Arg Tyr Val
65              70              75              80
Ala Val Thr Lys Val Pro Ser Gln Ser Gly Val Gly Lys Pro Cys Trp
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Ile Ile Cys Phe Cys Val Trp Met Ala Ala Ile Leu Leu Ser Ile Pro
      100             105             110
Gln Leu Val Phe Tyr Thr Val Asn Asp Asn Ala Arg Cys Ile Pro Ile
      115             120             125
Phe Pro Arg Tyr Leu Gly Thr Ser Met Lys Ala Leu Ile His Met Leu
      130             135             140
Glu Ile Cys Ile Gly Phe Val Val Pro Phe Leu Ile Met Gly Val
145             150             155

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 Pro Pro Asp Asp Leu Asp Leu Phe Pro Thr Pro Asp Pro His Tyr Glu  
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 Lys Lys Tyr Tyr Phe Pro Val Arg Glu Leu Glu Arg Ser Leu Arg Phe  
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 Gly Gly Thr Thr Phe Gly Arg His Leu Val Gln Asn Val Arg Leu Glu  
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 Val Pro Cys Asp Cys Arg Pro Gly Gln Lys Lys Cys Thr Cys Tyr Arg  
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 Pro Asn Arg Arg Glu Thr Trp Leu Phe Ser Arg Phe Ser Thr Gly Trp  
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 Ser Cys Gly Leu His Ala Asp Trp Thr Glu Leu Thr Asn Cys Val Pro  
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 Gly Val Leu Asp Arg Arg Asp Ser Ala Ala Leu Arg Thr Pro Arg Lys  
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 Glu Trp Arg His Val Gln Arg Gly Ala Thr Trp Lys Thr Ser Leu His  
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 Met Cys Asp Gly Arg Thr Pro Thr Pro Glu Glu Leu Pro Cys Tyr  
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 Pro Gly Gly Arg Leu Arg Thr Arg Arg Pro Ala Thr Ile Leu Ser Val  
 35 40 45  
 Ala Ala Ala Trp Gln Arg Ala Ser Leu Gly Gln Trp Xaa Arg Arg Pro  
 50 55 60  
 Val Ala Ala Leu Ala Pro Tyr Ser Asp Ser Leu Val Glu Pro Leu Val  
 65 70 75 80  
 Cys Arg Leu Gln Val Leu Phe Leu Lys Lys Ala Gly Ser Glu Arg Pro  
 85 90 95  
 Cys Glu Thr Thr Pro Gly Ala Lys Gly Asp Ser His Lys Thr Gln Val  
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<213> Homo sapiens

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Pro Ala Phe Ser Ser Asp Ser Arg Pro Phe Met Ser Ser Ala Ser Phe  
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Leu Gly Ser Gln Pro Cys Pro Asp Thr Ser Tyr Ala Pro Val Ala Thr  
65 70 75 80  
Ala Ser Ser Leu Pro Pro Lys Thr Cys Asp Phe Ala Gln Asp Ser Ser

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His Asp Lys Leu Phe Gln Leu Ser Arg Pro Phe Ala Gly Phe Glu Asp
145      150      155      160
Phe Leu Pro Ser His Ser Thr Pro Leu Leu Val Ser Tyr Gln Glu Gln
165      170      175
Ser Val Gln Ser Gln Pro Glu Glu Glu Asp Glu Ala Glu Glu Glu Glu
180      185      190
Ala Glu Glu Leu Gly His Thr Glu Thr Tyr Ala Asp Tyr Val Pro Ser
195      200      205
Lys Ser Lys Ile Gly Lys Gln His Pro Asp Arg Val Val Glu Thr Ser
210      215      220
Thr Leu Ser Ser Val Pro Pro Pro Asp Ile Thr Tyr Thr Leu Ala Leu
225      230      235      240
Pro Ser Asp Ser Gly Ala Leu Ser Ala Leu Gln Leu Glu Ala Ile Thr
245      250      255
Tyr Ala Cys Gln Gln His Glu Val Leu Leu Pro Ser Gly Gln Arg Ala
260      265      270
Gly Phe Leu Ile Gly Asp Gly Ala Gly Val Gly Lys Gly Arg Thr Val
275      280      285
Ala Gly Val Ile Leu Glu Asn His Leu Arg Gly Arg Lys Lys Ala Leu
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Arg Asp Ile Glu Ala Thr Gly Ile Ala Val His Ala Leu Ser Lys Ile
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Lys Tyr Gly Asp Thr Thr Thr Ser Glu Gly Val Leu Phe Ala Thr Tyr
340      345      350
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Val Tyr Ala Ser Ala Thr Gly Thr Ser Glu Pro Arg Asn Met Ile Tyr
420      425      430
Met Ser Arg Leu Gly Ile Trp Gly Glu Gly Thr Pro Phe Arg Asn Phe
435      440      445
Glu Glu Phe Leu His Ala Ile Glu Lys Arg Gly Val Gly Ala Met Glu
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Ile Val Ala Met Asp Met Lys Val Ser Gly Met Tyr Ile Ala Arg Gln
465      470      475      480
Leu Ser Phe Ser Gly Val Thr Phe Arg Ile Glu Glu Ile Pro Leu Ala
485      490      495
Pro Ala Phe Glu Cys Val Tyr Asn Arg Ala Ala Leu Leu Trp Ala Glu
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Ala Leu Asn Val Phe Gln Gln Ala Ala Asp Trp Ile Gly Leu Glu Ser

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515	520	525
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530	535	540
Lys Tyr Leu Cys Ile Ala	Ala Lys Val Arg Arg	Leu Val Glu Leu Ala
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Arg Glu Glu Leu Ala Arg	Asp Lys Cys Val Val	Ile Gly Leu Gln Ser
565	570	575
Thr Gly Glu Ala Arg Thr	Arg Glu Val Leu Gly	Glu Asn Asp Gly His
580	585	590
Leu Asn Cys Phe Val Ser	Ala Ala Glu Gly Val	Phe Leu Ser Leu Ile
595	600	605
Gln Lys His Phe Pro Ser	Thr Lys Arg Lys Arg	Asp Arg Gly Ala Gly
610	615	620
Ser Lys Arg Lys Arg Arg	Pro Arg Gly Arg Gly	Ala Lys Ala Pro Arg
625	630	635
Leu Ala Cys Glu Thr Ala	Gly Val Ile Arg Ile	Ser Asp Asp Ser Ser
645	650	655
Thr Glu Ser Asp Pro Gly	Leu Asp Ser Asp Phe	Asn Ser Ser Pro Glu
660	665	670
Ser Leu Val Asp Asp Asp	Val Val Ile Val Asp	Ala Val Gly Leu Pro
675	680	685
Ser Asp Asp Arg Gly Ser	Leu Cys Leu Leu Gln	Arg Asp Pro His Gly
690	695	700
Pro Gly Val Leu Glu Arg	Val Glu Arg Leu Lys	Gln Asp Leu Leu Asp
705	710	715
Lys Val Arg Arg Leu Gly	Arg Glu Leu Pro Val	Asn Thr Leu Asp Glu
725	730	735
Leu Ile Asp Gln Leu Gly	Gly Pro Gln Arg Val	Ala Glu Met Thr Gly
740	745	750
Arg Lys Gly Arg Val Val	Ser Arg Pro Asp Gly	Thr Val Ala Phe Glu
755	760	765
Ser Arg Ala Glu Gln Gly	Leu Ser Ile Asp His	Val Asn Leu Arg Glu
770	775	780
Lys Gln Arg Phe Met Ser	Gly Glu Lys Leu Val	Ala Ile Ile Ser Glu
785	790	795
Ala Ser Ser Ser Gly Val	Ser Leu Gln Ala Asp	Arg Arg Val Gln Asn
805	810	815
Gln Arg Arg Arg Val His	Met Thr Leu Glu Leu	Pro Trp Ser Ala Asp
820	825	830
Arg Ala Ile Gln Gln Phe	Gly Arg Thr His Arg	Ser Asn Gln Val Ser
835	840	845
Ala Pro Glu Tyr Val Phe	Leu Ile Ser Glu Leu	Ala Gly Glu Arg Arg
850	855	860
Phe Ala Ser Ile Val Ala	Lys Arg Leu Glu Ser	Leu Gly Ala Leu Thr
865	870	875
His Gly Asp Arg Arg Ala	Thr Glu Ser Arg Asp	Leu Ser Lys Tyr Asn
885	890	895
Phe Glu Asn Lys Tyr Gly	Thr Arg Ala Leu His	Cys Val Leu Thr Thr
900	905	910
Ile Leu Ser Gln Thr Glu	Asn Lys Val Pro Val	Pro Gln Gly Tyr Pro
915	920	925
Gly Gly Val Pro Thr Phe	Phe Arg Asp Met Lys	Gln Gly Leu Leu Ser
930	935	940
Val Gly Ile Gly Gly Arg	Glu Ser Arg Asn Gly	Cys Leu Asp Val Glu

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945          950          955          960
Lys Asp Cys Ser Ile Thr Lys Phe Leu Asn Arg Ile Leu Gly Leu Glu
          965          970          975
Val His Lys Gln Asn Ala Leu Phe Gln Tyr Phe Ser Asp Thr Phe Asp
          980          985          990
His Leu Ile Glu Met Asp Lys Arg Glu Gly Lys Tyr Asp Met Gly Ile
          995          1000          1005
Leu Asp Leu Ala Pro Gly Ile Glu Glu Ile Tyr Glu Glu Ser Gln Gln
          1010          1015          1020
Val Phe Leu Ala Pro Gly His Pro Gln Asp Gly Gln Val Val Phe Tyr
          1025          1030          1035          1040
Lys Ile Ser Val Asp Arg Gly Leu Lys Trp Glu Asp Ala Phe Ala Lys
          1045          1050          1055
Ser Leu Ala Leu Thr Gly Pro Tyr Asp Gly Phe Tyr Leu Ser Tyr Lys
          1060          1065          1070
Val Arg Gly Asn Lys Pro Ser Cys Leu Leu Ala Glu Gln Asn Arg Gly
          1075          1080          1085
Gln Phe Phe Thr Val Tyr Lys Pro Asn Ile Gly Arg Gln Ser Gln Leu
          1090          1095          1100
Glu Ala Leu Asp Ser Leu Arg Arg Lys Phe His Arg Val Thr Ala Glu
          1105          1110          1115          1120
Glu Ala Lys Glu Pro Trp Glu Ser Gly Tyr Ala Leu Ser Leu Thr His
          1125          1130          1135
Cys Ser His Ser Ala Trp Asn Arg His Cys Arg Leu Ala Gln Glu Gly
          1140          1145          1150
Lys Asp Cys Leu Gln Gly Leu Arg Leu Arg His His Tyr Met Leu Cys
          1155          1160          1165
Gly Ala Leu Leu Arg Val Trp Gly Arg Ile Ala Ala Val Met Ala Asp
          1170          1175          1180
Val Ser Ser Ser Ser Tyr Leu Gln Ile Val Arg Leu Lys Thr Lys Asp
          1185          1190          1195          1200
Arg Lys Lys Gln Val Gly Ile Lys Ile Pro Glu Gly Cys Val Arg Arg
          1205          1210          1215
Val Leu Gln Glu Leu Arg Leu Met Asp Ala Asp Val Lys Arg Arg Gln
          1220          1225          1230
Ala Pro Ala Leu Gly Cys Pro Ala Pro Pro Ala Pro Arg Pro Leu Ala
          1235          1240          1245
Leu Pro Cys Gly Pro Gly Glu Val Leu Asp Leu Thr Tyr Ser Pro Pro
          1250          1255          1260
Ala Glu Ala Phe Pro Pro Pro Pro His Phe Ser Phe Pro Ala Pro Leu
          1265          1270          1275          1280
Ser Leu Asp Ala Gly Pro Gly Val Val Pro Leu Gly Thr Pro Asp Ala
          1285          1290          1295
Gln Ala Asp Pro Ala Ala Leu Ala His Gln Gly Cys Asp Ile Asn Phe
          1300          1305          1310
Lys Glu Val Leu Glu Asp Met Leu Arg Ser Leu His Ala Gly Pro Pro
          1315          1320          1325
Ser Glu Gly Ala Leu Gly Glu Gly Ala Gly Ala Gly Gly Ala Ala Gly
          1330          1335          1340
Gly Gly Pro Glu Arg Gln Ser Val Ile Gln Phe Ser Pro Pro Phe Pro
          1345          1350          1355          1360
Gly Ala Gln Ala Pro Leu
          1365

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<210> 3107  
<211> 2102  
<212> DNA  
<213> Homo sapiens

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120  
caccagtttc tgatggagct gaagcaggaa gccctcacct ttgccaggaa ctggggggcc  
180  
gactatatcc tgtttcgaga cacagacaac attctgacca acaatcagac tctgcggctt  
240  
ctcatggggc aggggcttcc agtggtggc ccaatgctgg actcccagac ctactactcc  
300  
aacttctggt gtgggatcac ccccgaggc tactaccgcc gcacagccga gtacttcccc  
360  
accaagaacc gccacgccc gggtgtcttc cgtgtcccca tggccactc cacttctctt  
420  
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480  
acttgccctt tcgacgacat catcgtcttc gcctatgcct gccaggctgc tggggctctc  
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600  
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660  
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720  
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780  
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960  
tgggaagagg tgggtgccag gggcctggc cgggtcctgg tgtttgagga tgacgtgcgc  
1020  
tttgagagca acttcagggg gcggctggag cggctgatgg aggatgtgga ggcagagaaa  
1080  
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1140  
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1200  
ctgcgtctgg cgggtgcccg caagctgctg gcctcacagc ctctgcgccg catgctgccc  
1260  
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1320  
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1380  
tatgccgggg acgccgagtg gctcagtgc acggagacat cctctccatg ggatgatgac  
1440

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 1500  
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 1560  
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 1620  
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 1680  
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 1740  
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 1800  
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 1860  
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 1920  
 cagcttgatg ttgggtctc cccagacccc tcctccctgg ccggtgcaaa gtacagggag  
 1980  
 gtaaacgagg acccttgag acatgttgcc cagcacacag taggccctca ataaaagcca  
 2040  
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 gt  
 2102

<210> 3108

<211> 517

<212> PRT

<213> Homo sapiens

<400> 3108

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 20 25 30  
 Pro Lys His Trp Thr Lys Glu Arg His Gln Phe Leu Met Glu Leu Lys  
 35 40 45  
 Gln Glu Ala Leu Thr Phe Ala Arg Asn Trp Gly Ala Asp Tyr Ile Leu  
 50 55 60  
 Phe Ala Asp Thr Asp Asn Ile Leu Thr Asn Asn Gln Thr Leu Arg Leu  
 65 70 75 80  
 Leu Met Gly Gln Gly Leu Pro Val Val Ala Pro Met Leu Asp Ser Gln  
 85 90 95  
 Thr Tyr Tyr Ser Asn Phe Trp Cys Gly Ile Thr Pro Gln Gly Tyr Tyr  
 100 105 110  
 Arg Arg Thr Ala Glu Tyr Phe Pro Thr Lys Asn Arg Gln Arg Arg Gly  
 115 120 125  
 Cys Phe Arg Val Pro Met Val His Ser Thr Phe Leu Ala Ser Leu Arg  
 130 135 140  
 Ala Glu Gly Ala Asp Gln Leu Ala Phe Tyr Pro Pro His Pro Asn Tyr  
 145 150 155 160  
 Thr Trp Pro Phe Asp Asp Ile Ile Val Phe Ala Tyr Ala Cys Gln Ala  
 165 170 175  
 Ala Gly Val Ser Val His Val Cys Asn Glu His Arg Tyr Gly Tyr Met

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      180      185      190
Asn Val Pro Val Lys Ser His Gln Gly Leu Glu Asp Glu Arg Val Asn
      195      200      205
Phe Ile His Leu Ile Leu Glu Ala Leu Val Asp Gly Pro Arg Met Gln
      210      215      220
Ala Ser Ala His Val Thr Arg Pro Ser Lys Arg Pro Ser Lys Ile Gly
      225      230      235      240
Phe Asp Glu Val Phe Val Ile Ser Leu Ala Arg Arg Pro Asp Arg Arg
      245      250      255
Glu Arg Met Leu Ala Ser Leu Trp Glu Met Glu Ile Ser Gly Arg Val
      260      265      270
Val Asp Ala Val Asp Gly Trp Met Leu Asn Ser Ser Ala Ile Arg Asn
      275      280      285
Leu Gly Val Asp Leu Leu Pro Gly Tyr Gln Asp Pro Tyr Ser Gly Arg
      290      295      300
Thr Leu Thr Lys Gly Glu Val Gly Cys Phe Leu Ser His Tyr Ser Ile
      305      310      315      320
Trp Glu Glu Val Val Ala Arg Gly Leu Ala Arg Val Leu Val Phe Glu
      325      330      335
Asp Asp Val Arg Phe Glu Ser Asn Phe Arg Gly Arg Leu Glu Arg Leu
      340      345      350
Met Glu Asp Val Glu Ala Glu Lys Leu Ser Trp Asp Leu Ile Tyr Leu
      355      360      365
Gly Arg Lys Gln Val Asn Pro Glu Lys Glu Thr Ala Val Glu Gly Leu
      370      375      380
Pro Gly Leu Val Val Ala Gly Tyr Ser Tyr Trp Thr Leu Ala Tyr Ala
      385      390      395      400
Leu Arg Leu Ala Gly Ala Arg Lys Leu Leu Ala Ser Gln Pro Leu Arg
      405      410      415
Arg Met Leu Pro Val Asp Glu Phe Leu Pro Ile Met Phe Asp Gln His
      420      425      430
Pro Asn Glu Gln Tyr Lys Ala His Phe Trp Pro Arg Asp Leu Val Ala
      435      440      445
Phe Ser Ala Gln Pro Leu Leu Ala Ala Pro Thr His Tyr Ala Gly Asp
      450      455      460
Ala Glu Trp Leu Ser Asp Thr Glu Thr Ser Ser Pro Trp Asp Asp Asp
      465      470      475      480
Ser Gly Arg Leu Ile Ser Trp Ser Gly Ser Gln Lys Thr Leu Arg Ser
      485      490      495
Pro Arg Leu Asp Leu Thr Gly Ser Ser Gly His Ser Leu Gln Pro Gln
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Pro Arg Asp Glu Leu
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<210> 3109
<211> 959
<212> DNA
<213> Homo sapiens

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gcagcgcacc tgccctttgt taatacaaca tcaccttgct ccatatccta ccaaagatcc
120

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cctggaatct ggaaggatct atttactcg atccctccac agtcagcagg acaactttat  
 180  
 tccagtctgg gggacgcctt acccgagga gctgccaatc actgcagacg aagatgctca  
 240  
 cgtaatcttt gcagtcgcgc cgttctgccca gcgccatgta gcggccgtcc ctggtgaagg  
 300  
 tgattccctg cagactcgct cttcatcctg tgcgccatgt acaagcgagg gctggtgcag  
 360  
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 420  
 gtggcctcgt gctggagccc ggacggggcg cacattctca acaccacgga attccatctg  
 480  
 cggataaccg tctggctcct gtgcacaaaa tccgtgtctt acataaata cccgaaagct  
 540  
 tgtctgcagg gaatcacctt caccaggac ggccgctaca tggcgctggc agaacggcg  
 600  
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 660  
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 720  
 gtgtgggaca cctgcttga gtacaagatt ctgctgtact cattggatgg ccggttgttg  
 780  
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 840  
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<210> 3110

<211> 207

<212> PRT

<213> Homo sapiens

<400> 3110

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Trp	His	Cys	Lys	Ile	Asp	Glu	Gly	Ser	Ala	Gly	Leu	Val	Ala	Ser	Cys
			20					25					30		
Trp	Ser	Pro	Asp	Gly	Arg	His	Ile	Leu	Asn	Thr	Thr	Glu	Phe	His	Leu
			35				40					45			
Arg	Ile	Thr	Val	Trp	Ser	Leu	Cys	Thr	Lys	Ser	Val	Ser	Tyr	Ile	Lys
			50				55				60				
Tyr	Pro	Lys	Ala	Cys	Leu	Gln	Gly	Ile	Thr	Phe	Thr	Arg	Asp	Gly	Arg
65					70					75				80	
Tyr	Met	Ala	Leu	Ala	Glu	Arg	Arg	Asp	Cys	Lys	Asp	Tyr	Val	Ser	Ile
			85					90						95	
Phe	Val	Cys	Ser	Asp	Trp	Gln	Leu	Leu	Arg	His	Phe	Asp	Thr	Asp	Thr
			100					105					110		
Gln	Asp	Leu	Thr	Gly	Ile	Glu	Trp	Ala	Pro	Asn	Gly	Cys	Val	Leu	Ala
			115				120						125		
Val	Trp	Asp	Thr	Cys	Leu	Glu	Tyr	Lys	Ile	Leu	Leu	Tyr	Ser	Leu	Asp
			130				135					140			
Gly	Arg	Leu	Leu	Ser	Thr	Tyr	Ser	Ala	Xaa	Arg	Val	Val	Xaa	Leu	Gly

145		150		155		160									
Ile	Lys	Ser	Val	Ala	Trp	Ser	Pro	Ser	Ser	Gln	Phe	Leu	Ala	Val	Gly
		165				170								175	
Ser	Tyr	Asp	Gly	Lys	Val	Arg	Ile	Leu	Asn	His	Val	Thr	Trp	Lys	Met
		180				185								190	
Ile	Thr	Glu	Phe	Gly	His	Pro	Cys	Ser	Pro	Ile	Asn	Asp	Ser	Gln	
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&lt;210&gt; 3111

&lt;211&gt; 1269

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3111

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120
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180
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300
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360
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420
aacacagcac gctttgcggg catggctgac tcacaaaggt tgtaacaaac aagaactact
480
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cccgtgtcc tggtcccct tcttccctct gtcttggcca ggtccttccc cccatctctg
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 1269

<210> 3112  
 <211> 151  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Arg Asp Trp Glu Glu Arg Arg Gly Val Thr Thr Val Gln His Pro Glu  
 50 55 60  
 Lys Ser Asp Trp Gln Thr Arg Thr Gly Gln Pro Cys Ser Cys Met Ile  
 65 70 75 80  
 Gln Glu Leu Ala Ser Glu Arg Glu Ser Val Ala Glu Ala Gly Gly Ser  
 85 90 95  
 Ala Arg Gln Lys Val Arg Gly Leu Val Leu Arg Arg Gly Lys Arg Gln  
 100 105 110  
 Ser Glu Ser Leu His Ala Pro Gly Leu His Gly Arg Ala Arg Ala Ser  
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 130 135 140  
 Pro Tyr Gln Glu Thr Gly Ser  
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<210> 3113  
 <211> 631  
 <212> DNA  
 <213> Homo sapiens

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 120  
 ccaaaaggga aggagatagt aagcctgctg gaaagaaaca tcaccgtgac aatgtacatc  
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 atctcttca ttgtcctgat gatcatttcc ctcgcatggc tcgtctttta ttacatccag  
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 420  
 gattttgaca actgtgcagt ttgtattgaa gggtaacaag ccaatgacgt tgtccggatc  
 480



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 631

<210> 3114  
 <211> 210  
 <212> PRT  
 <213> Homo sapiens

<400> 3114  
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 Ile Val Ala Ile Met Ile Pro Glu Pro Lys Gly Lys Glu Ile Val Ser  
 35 40 45  
 Leu Leu Glu Arg Asn Ile Thr Val Thr Met Tyr Ile Thr Ile Gly Thr  
 50 55 60  
 Arg Asn Leu Gln Lys Tyr Val Ser Arg Thr Ser Val Val Phe Val Ser  
 65 70 75 80  
 Ile Ser Phe Ile Val Leu Met Ile Ile Ser Leu Ala Trp Leu Val Phe  
 85 90 95  
 Tyr Tyr Ile Gln Arg Phe Arg Tyr Ala Asn Ala Arg Asp Arg Asn Gln  
 100 105 110  
 Arg Arg Leu Gly Asp Ala Ala Lys Lys Ala Ile Ser Lys Leu Gln Ile  
 115 120 125  
 Arg Thr Ile Lys Lys Gly Asp Lys Glu Thr Glu Ser Asp Phe Asp Asn  
 130 135 140  
 Cys Ala Val Cys Ile Glu Gly Tyr Lys Pro Asn Asp Val Val Arg Ile  
 145 150 155 160  
 Leu Pro Cys Arg His Leu Phe His Lys Ser Cys Val Asp Pro Trp Leu  
 165 170 175  
 Leu Asp His Arg Thr Cys Pro Met Cys Lys Met Asn Ile Leu Lys Ala  
 180 185 190  
 Leu Gly Ile Pro Pro Asn Ala Asp Cys Met Asp Asp Phe Ala Thr Asp  
 195 200 205  
 Phe Glu  
 210

<210> 3115  
 <211> 1366  
 <212> DNA  
 <213> Homo sapiens

<400> 3115  
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 180

ctatactttg cacaatcaga gaatatagct gctcatgaga attgtttgct gtattcttca  
 240  
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 300  
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 360  
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 420  
 aagaaggacg acgcagttcc acagtctgat ggagttcgag gaatttataa actgctttgc  
 480  
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 540  
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 600  
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 660  
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 720  
 aatattagac aaagttcatt caattccaga aaaactcatg gatgagacta cttcagaatc  
 780  
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 840  
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 900  
 gaaggaagag attgagctac ttcaggactt aaaacaaacc ttgtgctctt ttcaagaaaa  
 960  
 tagagatctt atgtcaagtt ctacatcaat atcatccctg tcttattagg gattaccgtt  
 1020  
 tcctaagcca agagtcatgt caaattgcaa tcagggtcaa aaccagagac caggctgtga  
 1080  
 aatccacaca tctttagaac tagtcgtctc ctcttgccct cagcagctct tccctgttct  
 1140  
 tactgggtga cattttgatc actctttgca cactcttggt ttttttgctc actgtcacat  
 1200  
 tcccagcacc tagtatgctc agtaaatgtt tgtggaataa gtgcataaaa tgttcttaac  
 1260  
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 1320  
 ctaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa  
 1366

&lt;210&gt; 3116

&lt;211&gt; 191

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3116

Met Glu Lys Arg Thr Cys Ala Leu Cys Pro Lys Asp Val Glu Tyr Asn  
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 Val Leu Tyr Phe Ala Gln Ser Glu Asn Ile Ala Ala His Glu Asn Cys  
 20 25 30  
 Leu Leu Tyr Ser Ser Gly Leu Val Glu Cys Glu Asp Gln Asp Pro Leu  
 35 40 45  
 Asn Pro Asp Arg Ser Phe Asp Val Glu Ser Val Lys Lys Glu Ile Gln

50                      55                      60  
 Arg Gly Arg Lys Leu Lys Cys Lys Phe Cys His Lys Arg Gly Ala Thr  
 65                      70                      75                      80  
 Val Gly Cys Asp Leu Lys Asn Cys Asn Lys Asn Tyr His Phe Phe Cys  
                     85                      90                      95  
 Ala Lys Lys Asp Asp Ala Val Pro Gln Ser Asp Gly Val Arg Gly Ile  
                     100                      105                      110  
 Tyr Lys Leu Leu Cys Gln Gln His Ala Gln Phe Pro Ile Ile Ala Gln  
                     115                      120                      125  
 Ser Gly Lys Phe Ser Gly Val Lys Arg Lys Arg Gly Arg Lys Lys Pro  
                     130                      135                      140  
 Leu Ser Gly Asn His Val Gln Pro Pro Glu Thr Met Lys Cys Asn Thr  
 145                      150                      155                      160  
 Phe Ile Arg Gln Val Lys Glu Glu His Gly Arg His Thr Asp Ala Thr  
                     165                      170                      175  
 Val Lys Val Pro Phe Leu Lys Lys Cys Lys Xaa Ser Arg Thr Ser  
                     180                      185                      190

<210> 3117  
 <211> 1373  
 <212> DNA  
 <213> Homo sapiens

<400> 3117  
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 gcctcagcct ggggggtcac cctgagcccc aaagactgcc aggtgttccg ctcagaccat  
 180  
 ggcagctcca tctctgtcca accacctgcc gaaatccccg gctacctgcc agccgacacc  
 240  
 gtgcacctgg ccgtggaatt cttcaacctg acccacctgc cagccaacct cctccagggc  
 300  
 gcctctaagc tccaagaatt gcacctctcc agcaatgggc tggaaagcct ctgccccgaa  
 360  
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 420  
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 480  
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 ctgtctggga accgcctccg gaaactgccc cccgggctgc tggccaactt caccctcctg  
 600  
 cgcacccttg accttgggga gaaccagttg gagaccttgc cactgacct cctgaggggt  
 660  
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 720  
 ctctcttgc cgcagccgga cctgcgctac ctcttctga gcggcaacaa gctggccagg  
 780  
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 840  
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 900

cgggatggct tcgacatctc cggcaacccc tggatctgtg accagaacct gagcgacctc  
 960  
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 1080  
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 1140  
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 1200  
 tggcgggaatc acgaggtcag gagatcgaga ccatcttggc taacatggtg aaaccctgtc  
 1260  
 tctactaaaa atataaaaa ttagccaggc gtggtggtgg gcacctgtag tcccagcaac  
 1320  
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 1373

<210> 3118

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3118

Val	Thr	Leu	Ser	Pro	Lys	Asp	Cys	Gln	Val	Phe	Arg	Ser	Asp	His	Gly
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Ser	Ser	Ile	Ser	Cys	Gln	Pro	Pro	Ala	Glu	Ile	Pro	Gly	Tyr	Leu	Pro
			20					25					30		
Ala	Asp	Thr	Val	His	Leu	Ala	Val	Glu	Phe	Phe	Asn	Leu	Thr	His	Leu
		35				40					45				
Pro	Ala	Asn	Leu	Leu	Gln	Gly	Ala	Ser	Lys	Leu	Gln	Glu	Leu	His	Leu
	50				55				60						
Ser	Ser	Asn	Gly	Leu	Glu	Ser	Leu	Ser	Pro	Glu	Phe	Leu	Arg	Pro	Val
65				70					75					80	
Pro	Gln	Leu	Arg	Val	Leu	Asp	Leu	Thr	Arg	Asn	Ala	Leu	Thr	Gly	Leu
			85					90					95		
Pro	Pro	Gly	Leu	Phe	Gln	Ala	Ser	Ala	Thr	Leu	Asp	Thr	Leu	Val	Leu
		100						105					110		
Lys	Glu	Asn	Gln	Leu	Glu	Val	Leu	Glu	Val	Ser	Trp	Leu	His	Gly	Leu
	115				120						125				
Lys	Ala	Leu	Gly	His	Leu	Asp	Leu	Ser	Gly	Asn	Arg	Leu	Arg	Lys	Leu
	130				135					140					
Pro	Pro	Gly	Leu	Leu	Ala	Asn	Phe	Thr	Leu	Leu	Arg	Thr	Leu	Asp	Leu
145				150					155					160	
Gly	Glu	Asn	Gln	Leu	Glu	Thr	Leu	Pro	Pro	Asp	Leu	Leu	Arg	Gly	Pro
		165						170					175		
Leu	Gln	Leu	Glu	Arg	Leu	His	Leu	Glu	Gly	Asn	Lys	Leu	Gln	Val	Leu
	180						185						190		
Gly	Lys	Asp	Leu	Leu	Leu	Pro	Gln	Pro	Asp	Leu	Arg	Tyr	Leu	Phe	Leu
	195					200					205				
Ser	Gly	Asn	Lys	Leu	Ala	Arg	Val	Ala	Ala	Gly	Ala	Phe	Gln	Gly	Leu
	210				215						220				
Arg	Gln	Leu	Asp	Met	Leu	Asp	Leu	Ser	Asn	Ser	Leu	Ala	Ser	Val	
225				230					235					240	
Pro	Glu	Gly	Leu	Trp	Ala	Ser	Leu	Gly	Gln	Pro	Asn	Trp	Asp	Met	Arg

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                245                250                255
Asp Gly Phe Asp Ile Ser Gly Asn Pro Trp Ile Cys Asp Gln Asn Leu
                260                265                270
Ser Asp Leu Tyr Arg Trp Leu Gln Ala Gln Lys Asp Lys Met Phe Ser
                275                280                285
Gln Asn Asp Thr Arg Cys Ala Gly Pro Glu Ala Val Lys Gly Gln Thr
                290                295                300
Leu Leu Ala Val Ala Lys Ser Gln
305                310

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<210> 3119  
 <211> 427  
 <212> DNA  
 <213> Homo sapiens

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<400> 3119
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120
tacgtggagg ttgtccctcg ttccacagag gagatgagcc gagtgctgat ggggggcacc
180
ttgggcccga gtggcatgtc cctccacccc tgcaagctgc cctgcctctc accacctacc
240
tacaccacct tccaagccac cccaacgctc attcccacgg agacggcagc tctatacccc
300
cttccagcac tgctccagc tgcagggtg cctgctgccc ccacccctgt tgcctactat
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ccagggccag ccaactcaact ctacctgaac tacacagcct actacccaag ccccgagac
420
aacgcgt
427

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<210> 3120  
 <211> 142  
 <212> PRT  
 <213> Homo sapiens

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<400> 3120
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Ile Gln Met Thr Ser Ala Glu Arg Ala Leu Ala Ala Gln Arg Cys
20        25        30
His Lys Lys Val Met Lys Glu Arg Tyr Val Glu Val Val Pro Cys Ser
35        40        45
Thr Glu Glu Met Ser Arg Val Leu Met Gly Gly Thr Leu Gly Arg Ser
50        55        60
Gly Met Ser Pro Pro Cys Lys Leu Pro Cys Leu Ser Pro Pro Thr
65        70        75        80
Tyr Thr Thr Phe Gln Ala Thr Pro Thr Leu Ile Pro Thr Glu Thr Ala
85        90        95
Ala Leu Tyr Pro Ser Ser Ala Leu Leu Pro Ala Ala Arg Val Pro Ala
100       105       110
Ala Pro Thr Pro Val Ala Tyr Tyr Pro Gly Pro Ala Thr Gln Leu Tyr

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115                      120                      125  
 Leu Asn Tyr Thr Ala Tyr Tyr Pro Ser Pro Glu Asp Asn Ala  
 130                      135                      140

<210> 3121  
 <211> 284  
 <212> DNA  
 <213> Homo sapiens

<400> 3121  
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 atctgaggat ttctcaactt ctgcagcaac ttctgcagcc agctcacacg tgaggagaaa  
 120  
 taagaggaac atgaacctgg acggggcagc ttccattgtc cctctcctgc tctgtcta  
 180  
 gaacaaggcc tccccagagt atgaagagaa catgcacaga taccagaagg cagccaagct  
 240  
 ctccgggga agattctctt tattctggtg gacagtggta tgaa  
 284

<210> 3122  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 3122  
 Met Ala Ala Gly Thr Ser Val Ser His Val Gly Ser Trp Ala Ala Pro  
 1                      5                      10                      15  
 Gly Pro Ser Glu Asp Phe Ser Thr Ser Ala Ala Thr Ser Ala Ala Ser  
 20                      25                      30  
 Ser His Val Arg Arg Asn Lys Arg Asn Met Asn Leu Asp Gly Ala Ala  
 35                      40                      45  
 Ser Ile Val Pro Leu Leu Leu Leu Met Asn Lys Ala Ser Pro Glu  
 50                      55                      60  
 Tyr Glu Glu Asn Met His Arg Tyr Gln Lys Ala Ala Lys Leu Phe Arg  
 65                      70                      75                      80  
 Gly Arg Phe Ser Leu Phe Trp Trp Thr Val Val  
 85                      90

<210> 3123  
 <211> 344  
 <212> DNA  
 <213> Homo sapiens

<400> 3123  
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 gagattatga ggagccgcca agagatgaaa aaccgatca gtaacaagaa gaggaagaaa  
 120  
 gcagcccagg tgaccttcag aaagacattg gagaaggaag caaagggaga ggagcccgac  
 180  
 atcgagtc ccaggttcaa acagaggaag ggggagtcg acggggccta tatccaccgc  
 240

atgcagcaag aggccagca tgtgctgttc ctcagcaaga accaggccat ccggcagcca  
 300  
 gaggtgcagg cagctcccaa ggagaagtct gaggagaaaa aagc  
 344

<210> 3124  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 3124  
 Met Arg Ser Arg Gln Glu Met Lys Asn Pro Ile Ser Asn Lys Lys Arg  
 1 5 10 15  
 Lys Lys Ala Ala Gln Val Thr Phe Arg Lys Thr Leu Glu Lys Glu Ala  
 20 25 30  
 Lys Gly Glu Glu Pro Asp Ile Ala Val Pro Lys Phe Lys Gln Arg Lys  
 35 40 45  
 Gly Glu Ser Asp Gly Ala Tyr Ile His Arg Met Gln Gln Glu Ala Gln  
 50 55 60  
 His Val Leu Phe Leu Ser Lys Asn Gln Ala Ile Arg Gln Pro Glu Val  
 65 70 75 80  
 Gln Ala Ala Pro Lys Glu Lys Ser Glu Gln Lys Lys  
 85 90

<210> 3125  
 <211> 647  
 <212> DNA  
 <213> Homo sapiens

<400> 3125  
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 120  
 ggtcagcagg cagtttagtt gtgggagtat ttccaatttg catgaatgaa acatggacaa  
 180  
 ataagataag gctggctcca gggaagtaat tccccagtt cccctgagcc ttggatctgg  
 240  
 aaaactgcag cccatcctgg aattagggaa catcacaaaa cgtactgggg agaactcccc  
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 360  
 ctatggctaa gacagaaaaa caaaggaaaa aaagtcctcc ccaaacacac acataagcaa  
 420  
 aacctcatct cctgtgttct ctgccaaagag agctggagca aaagagatga gtttgagact  
 480  
 ctgattcatc catcaagaca aataaactca gtctatggag gtttagcagg caatttgatga  
 540  
 agcaaacaaa agttgagttt tggaaagggg ctctgaagaa aatgaagatg acataccagg  
 600  
 aatttaactt catgacaaga agagaaagtg actcactctt gacgcgt  
 647

<210> 3126

<211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 3126  
 Met Lys Leu Asn Ser Trp Tyr Val Ile Phe Ile Phe Phe Arg Ala Pro  
 1 5 10 15  
 Phe Gln Asn Ser Thr Phe Val Cys Phe Thr Asn Cys Pro Ala Asn Leu  
 20 25 30  
 His Arg Leu Ser Leu Phe Val Leu Met Asp Glu Ser Glu Ser Gln Thr  
 35 40 45  
 His Leu Phe Cys Ser Ser Ser Leu Gly Arg Glu His Arg Lys Met Gly  
 50 55 60  
 Phe Ala Tyr Val Cys Val Trp Gly Gly Leu Phe Phe Leu Cys Phe Ser  
 65 70 75 80  
 Val Leu Ala Ile Ala Cys Gly Arg Ala Gly Thr Trp Asp Leu Ala Arg  
 85 90 95  
 Leu Leu Ala Trp Ala Glu Ala Thr Trp Gly Val Leu Pro Ser Thr Phe  
 100 105 110  
 Cys Asp Val Pro  
 115

<210> 3127  
 <211> 2218  
 <212> DNA  
 <213> Homo sapiens

<400> 3127  
 ncagaagtta gccaaagtga acttaaatgaa atcaatcagt tcttgggacc cgtggaaaaa  
 60  
 ttcttctactg aagaggtgga ctcccgaata attgaccagg aagggaataat cccagatgaa  
 120  
 actttggaga aattgaagag cctagggctt ttgggctgc aagtcacaga agaatatggt  
 180  
 ggcctgggct tctccaacac catgtactca agactagggg agatcatcag catggatggg  
 240  
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 300  
 ggactgagg agcagaaagc caaatacttg cctaaactgg cgtccgggga gcacatagca  
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 660  
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 780



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1980  
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2160  
accatttaac aaagaatata aaatgtcaca atctgtgtac tgttaaaaaa aaaaaaaa  
2218

&lt;210&gt; 3128

&lt;211&gt; 565

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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 Gln Glu Gly Lys Ile Pro Asp Glu Thr Leu Glu Lys Leu Lys Ser Leu  
 35 40 45  
 Gly Leu Phe Gly Leu Gln Val Pro Glu Glu Tyr Gly Gly Leu Gly Phe  
 50 55 60  
 Ser Asn Thr Met Tyr Ser Arg Leu Gly Glu Ile Ser Met Asp Gly  
 65 70 75 80  
 Ser Ile Thr Val Thr Leu Ala Ala His Gln Ala Ile Gly Leu Lys Gly  
 85 90 95  
 Ile Ile Leu Ala Gly Thr Glu Glu Gln Lys Ala Lys Tyr Leu Pro Lys  
 100 105 110  
 Leu Ala Ser Gly Glu His Ile Ala Ala Phe Cys Leu Thr Glu Pro Ala  
 115 120 125  
 Ser Gly Ser Asp Ala Ala Ser Ile Arg Ser Arg Ala Thr Leu Ser Glu  
 130 135 140  
 Asp Lys Lys His Tyr Ile Leu Asn Gly Ser Lys Val Trp Ile Thr Asn  
 145 150 155 160  
 Gly Gly Leu Ala Asn Ile Phe Thr Val Phe Ala Lys Thr Glu Val Val  
 165 170 175  
 Asp Ser Asp Gly Ser Val Lys Asp Lys Ile Thr Ala Phe Ile Val Glu  
 180 185 190  
 Arg Asp Phe Gly Gly Val Thr Asn Gly Lys Pro Glu Asp Lys Leu Gly  
 195 200 205  
 Ile Arg Gly Ser Asn Thr Cys Glu Val His Phe Glu Asn Thr Lys Ile  
 210 215 220  
 Pro Val Glu Asn Ile Leu Gly Glu Val Gly Asp Gly Phe Lys Val Ala  
 225 230 235 240  
 Met Asn Ile Leu Asn Ser Gly Arg Phe Ser Met Gly Ser Val Val Ala  
 245 250 255  
 Gly Leu Leu Lys Arg Leu Ile Glu Met Thr Ala Glu Tyr Ala Cys Thr  
 260 265 270  
 Arg Lys Gln Phe Asn Lys Arg Leu Ser Glu Phe Gly Leu Ile Gln Glu  
 275 280 285  
 Lys Phe Ala Leu Met Ala Gln Lys Ala Tyr Val Met Glu Ser Met Thr  
 290 295 300  
 Tyr Leu Thr Ala Gly Met Leu Asp Gln Pro Gly Phe Pro Asp Cys Ser  
 305 310 315 320  
 Ile Glu Ala Ala Met Val Lys Val Phe Ser Ser Glu Ala Ala Trp Gln  
 325 330 335  
 Cys Val Ser Glu Ala Leu Gln Ile Leu Gly Gly Leu Gly Tyr Thr Arg  
 340 345 350  
 Asp Tyr Pro Tyr Glu Arg Ile Leu Arg Asp Thr Arg Ile Leu Leu Ile  
 355 360 365  
 Phe Glu Gly Thr Asn Glu Ile Leu Arg Met Tyr Ile Ala Leu Thr Gly  
 370 375 380  
 Leu Gln His Ala Gly Arg Ile Leu Thr Thr Arg Ile His Glu Leu Lys  
 385 390 395 400  
 Gln Ala Lys Val Ser Thr Val Met Asp Thr Val Gly Arg Arg Leu Arg  
 405 410 415  
 Asp Ser Leu Gly Arg Thr Val Asp Leu Gly Leu Thr Gly Asn His Gly

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          420          425          430
Val Val His Pro Ser Leu Ala Asp Ser Ala Asn Lys Phe Glu Glu Asn
          435          440          445
Thr Tyr Cys Phe Gly Arg Thr Val Glu Thr Leu Leu Leu Arg Phe Gly
          450          455          460
Lys Thr Ile Met Glu Glu Gln Leu Val Leu Lys Arg Val Ala Asn Ile
465          470          475          480
Leu Ile Asn Leu Tyr Gly Met Thr Ala Val Leu Ser Arg Ala Ser Arg
          485          490          495
Ser Ile Arg Ile Gly Leu Arg Asn His Asp His Glu Val Leu Leu Ala
          500          505          510
Asn Thr Phe Cys Val Glu Ala Tyr Leu Gln Asn Leu Phe Ser Leu Ser
          515          520          525
Gln Leu Asp Lys Tyr Ala Pro Glu Asn Leu Asp Glu Gln Ile Lys Lys
          530          535          540
Val Ser Gln Gln Ile Leu Glu Lys Arg Ala Tyr Ile Cys Ala His Pro
545          550          555          560
Leu Asp Arg Thr Cys
          565

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&lt;210&gt; 3129

&lt;211&gt; 1964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3129

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720
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780
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840

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<210> 3130

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3130

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 Gly Pro Gly Ala Ala Gln Glu Pro Thr Trp Leu Thr Asp Val Pro Ala  
 35 40 45  
 Ala Met Glu Phe Ile Ala Ala Thr Glu Val Ala Val Ile Gly Phe Phe  
 50 55 60  
 Gln Asp Leu Glu Ile Pro Ala Val Pro Ile Leu His Ser Met Val Gln

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65          70          75          80
Lys Phe Pro Gly Val Ser Phe Gly Ile Ser Thr Asp Ser Glu Val Leu
      85          90          95
Thr His Tyr Asn Ile Thr Gly Asn Thr Ile Cys Leu Phe Arg Leu Val
      100         105         110
Asp Asn Glu Gln Leu Asn Leu Glu Asp Glu Asp Ile Glu Ser Ile Asp
      115         120         125
Ala Thr Lys Leu Ser Arg Phe Ile Glu Ile Asn Ser Leu His Met Val
      130         135         140
Thr Glu Tyr Asn Pro Val Thr Val Ile Gly Leu Phe Asn Ser Val Ile
      145         150         155         160
Gln Ile His Leu Leu Leu Ile Met Asn Lys Ala Ser Pro Glu Tyr Glu
      165         170         175
Glu Asn Met His Arg Tyr Gln Lys Ala Ala Lys Leu Phe Gln Gly Lys
      180         185         190
Ile Leu Phe Ile Leu Val Asp Ser Gly Met Lys Glu Asn Gly Lys Val
      195         200         205
Ile Ser Phe Phe Lys Leu Lys Glu Ser Gln Leu Pro Ala Leu Ala Ile
      210         215         220
Tyr Gln Thr Leu Asp Asp Glu Trp Asp Thr Leu Pro Thr Ala Glu Val
      225         230         235         240
Ser Val Glu His Val Gln Asn Phe Cys Asp Gly Phe Leu Ser Gly Lys
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Leu Leu Lys Glu Asn Arg Glu Ser Lys Arg Lys Thr Pro Lys Val Glu
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<210> 3131
<211> 1544
<212> DNA
<213> Homo sapiens

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600

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 <213> Homo sapiens

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 35 40 45  
 Ala Gln Leu Thr Lys Ser Asn Ala Pro Val His Ile Asp Val Gly Gly  
 50 55 60  
 His Met Tyr Thr Ser Ser Leu Ala Thr Leu Thr Lys Tyr Pro Glu Ser  
 65 70 75 80  
 Arg Ile Gly Arg Leu Phe Asp Gly Thr Glu Pro Ile Val Leu Asp Ser  
 85 90 95  
 Leu Lys Gln His Tyr Phe Ile Asp Arg Asp Gly Gln Met Phe Arg Tyr  
 100 105 110  
 Ile Leu Asn Phe Leu Arg Thr Ser Lys Leu Leu Ile Pro Asp Asp Phe

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Lys Asp Tyr Thr Leu Leu Tyr Glu Glu Ala Lys Tyr Phe Gln Leu Gln
      130              135              140
Pro Met Leu Leu Glu Met Glu Arg Trp Lys Gln Asp Arg Glu Thr Gly
145              150              155              160
Arg Phe Ser Arg Pro Cys Glu Cys Leu Val Val Arg Val Ala Pro Asp
      165              170              175
Leu Gly Glu Arg Ile Thr Leu Ser Gly Asp Lys Ser Leu Ile Glu Glu
      180              185              190
Val Phe Pro Glu Ile Gly Asp Val Met Cys Asn Ser Val Asn Ala Gly
      195              200              205
Trp Asn His Asp Ser Thr His Val Ile Arg Phe Pro Leu Asn Gly Tyr
      210              215              220
Cys His Leu Asn Ser Val Gln Val Leu Glu Arg Leu Gln Gln Arg Gly
225              230              235              240
Phe Glu Ile Val Gly Ser Cys Gly Gly Gly Val Asp Ser Ser Gln Phe
      245              250              255
Ser Glu Tyr Val Leu Arg Arg Glu Leu Arg Arg Thr Pro Arg Val Pro
      260              265              270
Ser Val Ile Arg Ile Lys Gln Glu Pro Leu Asp
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&lt;210&gt; 3133

&lt;211&gt; 621

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3133

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621

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&lt;210&gt; 3134

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3134

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 Ala Val Arg Gln Val Pro Ser Ser Cys Ala Ala Ser Arg Lys Asn Glu  
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 Thr Glu Val Lys Ser Glu Glu Gly Pro Gly Trp Thr Ile Leu Arg Asp  
 35 40 45  
 Asp Phe Met  
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&lt;210&gt; 3135

&lt;211&gt; 3166

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3135

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<211> 278

<212> PRT

<213> Homo sapiens

<400> 3136

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			20					25					30		
Lys	Cys	Pro	Ile	Cys	Gln	Thr	Val	Lys	Ala	Asn	Gln	Leu	Glu	Leu	Glu
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Cys	Gly	Tyr	Leu	Ser	Lys	Thr	Ala	Asn	Lys	Leu	Ile	Glu	His	Val	Arg
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Cys	Lys	Arg	Lys	Asp	Asn	Leu	Asn	Leu	His	Lys	Lys	Leu	Lys	His	Ala
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Pro	Arg	Gln	Thr	Phe	Ser	Cys	Glu	Glu	Cys	Leu	Phe	Lys	Thr	Thr	His
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Ser	Asp	Phe	Ala	His	Leu	Ile	Pro	Leu	Thr	Met	Leu	Tyr	Pro	Lys	Asn
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His	Leu	Asp	Leu	Thr	Phe	His	Pro	Pro	Arg	Pro	Gln	Thr	Ala	Pro	Pro

				245					250					255	
Ser	Ile	Pro	Ser	Pro	Lys	His	Ser	Phe	Leu	Ala	Tyr	Leu	Gly	Leu	Arg
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<211> 977

<212> PRT

<213> Homo sapiens

<400> 3138

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Tyr Met Gln Pro Gly Leu Pro Glu Ser Leu Leu Ser Val Asp Asp Asp
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Thr Asp Asn Pro Asp Asp Ser Val Phe Tyr Gln Val Gln Ser Leu Phe
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Gly His Leu Met Glu Ser Lys Leu Gln Tyr Tyr Val Pro Glu Asn Phe
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Trp Lys Ile Phe Lys Met Trp Asn Lys Glu Leu Tyr Val Arg Glu Gln
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Gln Asp Ala Tyr Glu Phe Phe Thr Ser Leu Ile Asp Gln Met Asp Glu
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Tyr Leu Lys Lys Met Gly Arg Asp Gln Ile Phe Lys Asn Thr Phe Gln
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Glu Arg Glu Glu Ala Phe Met Ala Leu Asn Leu Gly Val Thr Ser Cys
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Gln Ser Leu Glu Ile Ser Leu Asp Gln Phe Val Arg Gly Glu Val Leu
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Glu Gly Ser Asn Ala Tyr Tyr Cys Glu Lys Cys Lys Glu Lys Arg Ile
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Tyr Asp Glu Gln Ile Arg Phe Pro Trp Met Leu Asn Met Glu Pro Tyr
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Asn Gly Arg Ser Val Asp Gln Gly Gly Gly Gly Ser Pro Arg Lys Lys
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Gly Gln Ala His Ala Gly His Tyr Tyr Ser Phe Ile Lys Asp Arg Arg
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Gly Cys Gly Lys Gly Lys Trp Tyr Lys Phe Asn Asp Thr Val Ile Glu
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Glu Phe Asp Leu Asn Asp Glu Thr Leu Glu Tyr Glu Cys Phe Gly Gly
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Glu Tyr Arg Pro Lys Val Tyr Asp Gln Thr Asn Pro Tyr Thr Asp Val
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Arg Arg Arg Tyr Trp Asn Ala Tyr Met Leu Phe Tyr Gln Arg Val Ser
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Asp Gln Asn Ser Pro Val Leu Pro Lys Lys Ser Arg Val Ser Val Val
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Arg Gln Glu Ala Glu Asp Leu Ser Leu Ser Ala Pro Ser Ser Pro Glu
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Ile Ser Pro Gln Ser Ser Pro Arg Pro His Arg Pro Asn Asn Asp Arg
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Thr Glu Glu Trp Ile Ala Thr Ile Glu Ala Leu Leu Ser Lys Ser Phe
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Asp Ala Cys Gln Trp Leu Val Glu Tyr Phe Ile Ser Ser Glu Gly Arg
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Val Leu His Ser Asp Val Ser Ser Gln Arg Asn Val Ala Pro Gly Ile
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Phe Lys Gln Arg Pro Pro Ile Ser Ile Ala Pro Ser Ser Pro Leu Leu
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Pro Tyr Leu Leu Glu Val Met Phe Ala Leu Arg Glu Leu Thr Gly Ser
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Ala Pro Pro His Glu Leu Lys Asn Thr Phe Gln Leu Leu His Glu Ile
      805      810      815
Leu Val Ile Glu Asp Pro Ile Gln Ala Glu Arg Val Lys Phe Val Phe
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Glu Thr Glu Asn Gly Leu Leu Ala Leu Met His His Ser Asn His Val
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Asp Ser Ser Arg Cys Tyr Gln Cys Val Lys Phe Leu Val Thr Leu Ala
      850      855      860
Gln Lys Cys Pro Ala Ala Lys Glu Tyr Phe Lys Glu Asn Ser His His
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Trp Ser Trp Ala Val Gln Trp Leu Gln Lys Lys Met Ser Glu His Tyr

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 Leu Asn Lys Ser Ser Asn Trp Gly Thr Ser Pro Leu Leu Trp Tyr Phe  
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 Tyr Ser Ala Leu Pro Arg Gly Leu Gly Cys Ser Leu Leu Phe Ile Pro  
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Gly Phe Met Ala Leu Tyr Ser Leu Leu Pro His Lys Glu Leu Arg Phe																
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 Asp Val Phe Phe Tyr Gln Ala Asp Asp Glu His Tyr Ile Pro Arg Ala  
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 Asn Phe Asp Glu Met Asp Thr Ser Arg Glu Ile Val Gln Gln Leu Ile  
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&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3143

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 <213> Homo sapiens

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 Thr Pro Arg Ser Pro Leu His Leu Pro Ser Gly Gly Cys Leu Lys Arg  
 35 40 45  
 Arg Leu Pro Pro Phe Thr His Leu Pro Ser Val Pro Gly Pro Pro Ser

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      50      55      60
Leu Val Cys Gln Thr Leu Gln Pro Pro Ala Ser Gly His Ser Ala Arg
65      70      75      80
Gln Met Thr Ser Gly Gly Glu Pro His Ile Ser Thr Gly Ser Arg Arg
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Pro Arg Lys Leu Pro Trp Pro Ala His Pro Arg Cys Ser Ala Cys Pro
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Pro Asn Val Val Ser Ser Arg Arg Arg Leu Thr Pro Arg Arg Gly Trp
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Gly Thr Ser
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<210> 3147
<211> 3106
<212> DNA
<213> Homo sapiens

<400> 3147
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<210> 3148

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3148

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 35 40 45  
 Trp Ser Ile Gln His Pro Gly Gly Gln Arg Val Ile Gly His Tyr Ala  
 50 55 60  
 Gly Glu Asp Ala Thr Asp Ala Phe Arg Ala Phe His Pro Asp Leu Glu  
 65 70 75 80  
 Phe Val Gly Lys Phe Leu Lys Pro Leu Leu Ile Gly Glu Leu Ala Pro  
 85 90 95  
 Glu Glu Pro Ser Gln Asp His Gly Lys Asn Ser Lys Ile Thr Glu Asp  
 100 105 110  
 Phe Arg Ala Leu Arg Lys Thr Ala Glu Asp Met Asn Leu Phe Lys Thr  
 115 120 125  
 Asn His Val Phe Phe Leu Leu Leu Ala His Ile Ile Ala Leu Glu  
 130 135 140  
 Ser Ile Ala Trp Phe Thr Val Phe Tyr Phe Gly Asn Gly Trp Ile Pro  
 145 150 155 160  
 Thr Leu Ile Thr Ala Phe Val Leu Ala Thr Ser Gln Ala Gln Ala Gly  
 165 170 175  
 Trp Leu Gln His Asp Tyr Gly His Leu Ser Val Tyr Arg Lys Pro Lys  
 180 185 190  
 Trp Asn His Leu Val His Lys Phe Val Ile Gly His Leu Lys Gly Ala  
 195 200 205  
 Ser Ala Asn Trp Trp Asn His Arg His Phe Gln His His Ala Lys Pro  
 210 215 220  
 Asn Ile Phe His Lys Asp Pro Asp Val Asn Met Leu His Val Phe Val  
 225 230 235 240  
 Leu Gly Glu Trp Gln Pro Ile Glu Tyr Gly Lys Lys Lys Leu Lys Tyr  
 245 250 255  
 Leu Pro Tyr Asn His Gln His Glu Tyr Phe Phe Leu Ile Gly Pro Pro



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      260      265      270
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Val His Lys Asn Trp Val Asp Leu Ala Trp Ala Val Ser Tyr Tyr Ile
      290      295      300
Arg Phe Phe Ile Thr Tyr Ile Pro Phe Tyr Gly Ile Leu Gly Ala Leu
      305      310      315      320
Leu Phe Leu Asn Phe Ile Arg Phe Leu Glu Ser His Trp Phe Val Trp
      325      330      335
Val Thr Gln Met Asn His Ile Val Met Glu Ile Asp Gln Glu Ala Tyr
      340      345      350
Arg Asp Trp Phe Ser Ser Gln Leu Thr Ala Thr Cys Asn Val Glu Gln
      355      360      365
Ser Phe Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
      370      375      380
His His Leu Phe Pro Thr Met Pro Arg His Asn Leu His Lys Ile Ala
      385      390      395      400
Pro Leu Val Lys Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Glu
      405      410      415
Lys Pro Leu Leu Arg Ala Leu Leu Asp Ile Ile Arg Ser Leu Lys Lys
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Ser Gly Lys Leu Trp Leu Asp Ala Tyr Leu His Lys
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<210> 3149
<211> 1006
<212> DNA
<213> Homo sapiens

<400> 3149
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180
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240
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420
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480
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720

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<210> 3150

<211> 201

<212> PRT

<213> Homo sapiens

<400> 3150

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			20					25					30		
Ala	Pro	Ala	Ala	Gly	Thr	Met	Gly	Ala	Ala	His	Ser	Ala	Ser	Glu	Glu
			35				40					45			
Val	Arg	Glu	Leu	Glu	Gly	Lys	Thr	Gly	Phe	Ser	Ser	Asp	Gln	Ile	Glu
			50			55						60			
Gln	Leu	His	Arg	Arg	Phe	Lys	Gln	Leu	Ser	Gly	Asp	Gln	Pro	Thr	Ile
			65			70				75				80	
Arg	Lys	Glu	Asn	Phe	Asn	Asn	Val	Pro	Asp	Leu	Glu	Leu	Asn	Pro	Ile
			85						90				95		
Arg	Ser	Lys	Ile	Val	Arg	Ala	Phe	Phe	Asp	Asn	Arg	Asn	Leu	Arg	Lys
			100					105					110		
Gly	Pro	Ser	Gly	Leu	Ala	Asp	Glu	Ile	Asn	Phe	Glu	Asp	Phe	Leu	Thr
			115					120				125			
Ile	Met	Ser	Tyr	Phe	Arg	Pro	Ile	Asp	Thr	Thr	Met	Asp	Glu	Glu	Gln
			130				135					140			
Val	Glu	Leu	Ser	Arg	Lys	Glu	Lys	Leu	Arg	Phe	Leu	Phe	His	Met	Tyr
			145			150				155				160	
Asp	Ser	Asp	Ser	Asp	Gly	Arg	Ile	Thr	Leu	Glu	Glu	Tyr	Arg	Asn	Val
			165					170						175	
Lys	Trp	Ser	Arg	Ser	Cys	Cys	Arg	Glu	Thr	Leu	Thr	Ser	Arg	Arg	Ser
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<210> 3151

<211> 2079

<212> DNA

<213> Homo sapiens

<400> 3151

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cctgggcctc tcggtggagc agggaccga accggtgcc atccagtcg gtgccatctg  
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540  
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<210> 3152  
 <211> 214  
 <212> PRT  
 <213> Homo sapiens

<400> 3152  
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 35 40 45  
 Ile Phe Ser Phe Ile Ser Lys Asp Val Val Ser Lys Leu Arg Ile Met  
 50 55 60  
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 Ala Met Val Ala His Glu Leu Ser Asn Arg Leu Val Asp Leu Glu Gly  
 85 90 95  
 Arg Ser His His Pro Glu Ser Gly Cys Arg Thr Val Leu Arg Leu His  
 100 105 110  
 Arg Ala Leu His Trp Leu Gln Leu Phe Leu Glu Gly Leu Arg Thr Ser  
 115 120 125  
 Pro Glu Asp Ala Arg Thr Ser Ala Leu Cys Ala Asp Ser Tyr Asn Ala  
 130 135 140  
 Ser Leu Ala Ala Tyr His Pro Trp Val Val Arg Arg Ala Val Thr Val  
 145 150 155 160  
 Ala Phe Cys Thr Leu Pro Thr Arg Glu Val Phe Leu Glu Ala Met Asn  
 165 170 175  
 Val Gly Pro Pro Glu Gln Ala Val Gln Met Leu Gly Glu Ala Leu Pro  
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<210> 3153  
 <211> 1498  
 <212> DNA  
 <213> Homo sapiens

<400> 3153

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1498

&lt;210&gt; 3154

&lt;211&gt; 65

&lt;212&gt; PRT

<211> Homo sapiens

<400> 3154

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 20 25 30  
 Ser Gly His Arg Trp Gly Ile Thr Leu Pro Thr Arg Asp Ser Arg His  
 35 40 45  
 Gly Leu Leu Gly Leu Gln Ala Pro Trp Gly Ser Arg Gly Lys Pro Gln  
 50 55 60  
 Gly  
 65

<210> 3155

<211> 551

<212> DNA

<213> Homo sapiens

<400> 3155

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<210> 3156

<211> 178

<212> PRT

<213> Homo sapiens

<400> 3156

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 Thr Ala Ser Thr Asn Cys Asp Ser Ser Ser Glu Gly Leu Glu Lys Asp  
 35 40 45  
 Thr Ala Thr Gln Arg Ser Asp Gln Thr Cys Leu Glu Pro Ser Cys Ser

50		55		60
Cys Ser Ser Glu Asn Gln Glu Cys Gln Thr Ala Ala Ser Pro Gly Glu				
65		70		75
Ile Leu Glu Ile Leu Lys Lys Gly Lys Ala Phe Val Leu Asp Ile Asp				80
	85		90	
Leu Asp Phe Phe Ser Val Lys Asn Pro Phe Lys Lys Met Phe Thr Gln				95
	100		105	
Glu Glu Tyr Lys Ile Leu Gln Glu Leu Tyr Gln Phe Lys Lys Pro Gly				110
	115		120	
Thr Asn Leu Thr Glu Glu Asp Leu Val Asp Ile Val Asp Thr Arg Ile				125
	130		135	
His Gln Leu Glu Asp Leu Glu Ala Thr Phe Ala Asp Leu Cys Asp Gly				140
	145		150	
Asp Asp Glu Glu Thr Val Gln Gly Trp Ala Ser Asn Pro Gly Met Glu				155
	160		165	
			170	
Ser Leu				175

&lt;210&gt; 3157

&lt;211&gt; 903

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3157

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<211> 92  
<212> PRT  
<213> Homo sapiens

<400> 3158  
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Thr Glu Pro Pro Thr Pro Glu Pro Gly Pro Lys Thr Pro Pro Arg Thr  
35 40 45  
Met Gln Glu Ser Pro Leu Gly Leu Gln Val Lys Glu Glu Ser Glu Val  
50 55 60  
Thr Glu Asp Ser Asp Phe Leu Glu Ser Gly Pro Leu Ala Ala Thr Gln  
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Glu Ser Val Pro Thr Leu Leu Pro Glu Glu Ala Gln  
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<210> 3159  
<211> 2408  
<212> DNA  
<213> Homo sapiens

<400> 3159  
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<211> 431  
<212> PRT  
<213> Homo sapiens

<400> 3160  
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Glu Lys Leu Leu Glu Lys Tyr Met Asp Glu Asp Gly Glu Trp Trp Ile  
35 40 45  
Ala Lys Gln Arg Gly Lys Arg Ala Ile Thr Asp Asn Asp Met Gln Ser  
50 55 60  
Ile Leu Asp Leu His Asn Lys Leu Arg Ser Gln Val Tyr Pro Thr Ala  
65 70 75 80  
Ser Asn Met Glu Tyr Met Thr Trp Asp Val Glu Leu Glu Arg Ser Ala  
85 90 95  
Glu Ser Trp Ala Glu Ser Cys Leu Trp Glu His Gly Pro Ala Ser Leu  
100 105 110  
Leu Pro Ser Ile Gly Gln Asn Leu Gly Ala His Trp Gly Arg Tyr Arg  
115 120 125  
Pro Pro Thr Phe His Val Gln Ser Trp Tyr Asp Glu Val Lys Asp Phe  
130 135 140  
Ser Tyr Pro Tyr Glu His Glu Cys Asn Pro Tyr Cys Pro Phe Arg Cys  
145 150 155 160  
Ser Gly Pro Val Cys Thr His Tyr Thr Gln Val Val Trp Ala Thr Ser  
165 170 175  
Asn Arg Ile Gly Cys Ala Ile Asn Leu Cys His Asn Met Asn Ile Trp  
180 185 190  
Gly Gln Ile Trp Pro Lys Ala Val Tyr Leu Val Cys Asn Tyr Ser Pro  
195 200 205  
Lys Gly Asn Trp Trp Gly His Ala Pro Tyr Lys His Gly Arg Pro Cys  
210 215 220  
Ser Ala Cys Pro Pro Ser Phe Gly Gly Cys Arg Glu Asn Leu Cys  
225 230 235 240  
Tyr Lys Glu Gly Ser Asp Arg Tyr Tyr Pro Pro Arg Glu Glu Glu Thr  
245 250 255  
Asn Glu Ile Glu Arg Gln Gln Ser Gln Val His Asp Thr His Val Arg  
260 265 270  
Thr Arg Ser Asp Asp Ser Ser Arg Asn Glu Val Ile Ser Ala Gln Gln  
275 280 285  
Met Ser Gln Ile Val Ser Cys Glu Val Arg Leu Arg Asp Gln Cys Lys  
290 295 300  
Gly Thr Thr Cys Asn Arg Tyr Glu Cys Pro Ala Gly Cys Leu Asp Ser  
305 310 315 320  
Lys Ala Lys Val Ile Gly Ser Val His Tyr Glu Met Gln Ser Ser Ile  
325 330 335  
Cys Arg Ala Ala Ile His Tyr Gly Ile Ile Asp Asn Asp Gly Gly Trp  
340 345 350  
Val Asp Ile Thr Arg Gln Gly Arg Lys His Tyr Phe Ile Lys Ser Asn

	355		360		365
Arg	Asn Gly Ile Gln Thr	Ile Gly Lys Tyr Gln	Ser Ala Asn Ser Phe		
	370	375	380		
Thr Val Ser Lys Val Thr	Val Gln Ala Val Thr	Cys Glu Thr Thr Val			
385	390	395	400		
Asp Ser Ser Val His Phe	Ile Ser Leu Leu His	Ile Ala Gln Glu Tyr			
	405	410	415		
Thr Val Leu Val Thr Val	Cys Lys Gln Ile His	Ile Met Leu Val			
	420	425	430		

&lt;210&gt; 3161

&lt;211&gt; 1197

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3161

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<210> 3162

<211> 386

<212> PRT

<213> Homo sapiens

<400> 3162

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Ile Thr Ala Ser Ser Asn Lys Ser Leu Asn Leu Leu Lys Ile Lys His  
35 40 45  
Gly Asp Leu Leu Phe Leu Phe Pro Ser Ser Leu Ala Gly Pro Ser Ser  
50 55 60  
Glu Met Glu Thr Ser Val Pro Pro Gly Phe Lys Val Phe Gly Ala Pro  
65 70 75 80  
Asn Val Val Glu Asp Glu Ile Asp Gln Tyr Leu Ser Lys Gln Asp Gly  
85 90 95  
Lys Ile Tyr Arg Ser Arg Asp Pro Gln Leu Cys Arg His Gly Pro Leu  
100 105 110  
Gly Lys Cys Val His Cys Val Pro Leu Glu Pro Phe Asp Glu Asp Tyr  
115 120 125  
Leu Asn His Leu Glu Pro Pro Val Lys His Met Ser Phe His Ala Tyr  
130 135 140  
Ile Arg Lys Leu Thr Gly Gly Ala Asp Lys Gly Lys Phe Val Ala Leu  
145 150 155 160  
Glu Asn Ile Ser Cys Lys Ile Lys Ser Gly Cys Glu Gly His Leu Pro  
165 170 175  
Trp Pro Asn Gly Ile Cys Thr Lys Cys Gln Pro Ser Ala Ile Thr Leu  
180 185 190  
Asn Arg Gln Lys Tyr Arg His Val Asp Asn Ile Met Phe Glu Asn His  
195 200 205  
Thr Val Ala Asp Arg Phe Leu Asp Phe Trp Arg Lys Thr Gly Asn Gln  
210 215 220  
His Phe Gly Tyr Leu Tyr Gly Arg Tyr Thr Glu His Lys Asp Ile Pro  
225 230 235 240  
Leu Gly Ile Arg Ala Glu Val Ala Ala Ile Tyr Glu Pro Pro Gln Ile  
245 250 255  
Gly Thr Gln Asn Ser Leu Glu Leu Leu Glu Asp Pro Lys Ala Glu Val  
260 265 270  
Val Asp Glu Ile Ala Ala Lys Leu Gly Leu Arg Lys Val Gly Trp Ile  
275 280 285  
Phe Thr Asp Leu Val Ser Glu Asp Thr Arg Lys Gly Thr Val Arg Tyr  
290 295 300  
Ser Arg Asn Lys Asp Thr Tyr Phe Leu Ser Ser Glu Glu Cys Ile Thr  
305 310 315 320  
Ala Gly Asp Phe Gln Asn Lys His Pro Asn Met Cys Arg Leu Ser Pro  
325 330 335  
Asp Gly His Phe Gly Ser Lys Phe Val Thr Ala Val Ala Thr Gly Gly  
340 345 350  
Pro Asp Asn Gln Val His Phe Glu Gly Tyr Gln Val Ser Asn Gln Cys

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Val Cys
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<210> 3163
<211> 1075
<212> DNA
<213> Homo sapiens

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<210> 3164
<211> 94
<212> PRT
<213> Homo sapiens

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 Ser Ser Val Pro Pro Arg Gln Ala Cys Ala Ser Pro Ala Ser Cys Ser  
 35 40 45  
 Ser Ser Ala Ala Xaa Ala Ser Ala Ser Thr Gly Pro Trp His Ser Gly  
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 Cys Gly Ser Ser Cys Gly Ser Cys Cys Cys Trp Gly Ser Pro Ser Ala  
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 85 90

<210> 3165  
 <211> 2413  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 3166

&lt;211&gt; 717

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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35 40 45  
Ala Glu Trp Asp Gln Val Thr Val Tyr Leu Phe Cys Asp Asp His Lys  
50 55 60  
Leu Gln Arg Tyr Ala Leu Asn Arg Ile Thr Val Trp Arg Ser Arg Ser  
65 70 75 80  
Gly Asn Glu Leu Pro Leu Ala Val Ala Ser Thr Ala Asp Leu Ile Arg  
85 90 95  
Cys Lys Leu Leu Asp Val Thr Gly Gly Leu Gly Thr Asp Glu Leu Arg  
100 105 110  
Leu Leu Tyr Gly Met Ala Leu Val Arg Phe Val Asn Leu Ile Ser Glu  
115 120 125  
Arg Lys Thr Lys Phe Ala Lys Val Pro Leu Lys Cys Leu Ala Gln Glu  
130 135 140  
Val Asn Ile Pro Asp Trp Ile Val Asp Leu Arg His Glu Leu Thr His  
145 150 155 160  
Lys Lys Met Pro His Ile Asn Asp Cys Arg Arg Gly Cys Tyr Phe Val  
165 170 175  
Leu Asp Trp Leu Gln Lys Thr Tyr Trp Cys Arg Gln Leu Glu Asn Ser  
180 185 190  
Leu Arg Glu Thr Trp Glu Leu Glu Glu Phe Arg Glu Gly Ile Glu Glu  
195 200 205  
Glu Asp Gln Glu Glu Asp Lys Asn Ile Val Val Asp Asp Ile Thr Glu  
210 215 220  
Gln Lys Pro Glu Pro Gln Asp Asp Gly Lys Ser Thr Glu Ser Asp Val  
225 230 235 240  
Lys Ala Asp Gly Asp Ser Lys Gly Ser Glu Glu Val Asp Ser His Cys  
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385	390	395
Met Glu Glu Lys Val His Gly Cys Cys Arg Ile Ser		400
405	410	

<210> 3171  
 <211> 753  
 <212> DNA  
 <213> Homo sapiens

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 240  
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 300  
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 360  
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 420  
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 480  
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 660  
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<210> 3172  
 <211> 228  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3172

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Gly Thr Ser Asp Ala Glu Thr Ser Ala Leu His Ile Val Val Gly Asp
      35           40           45
Ser Leu Ala Met Asp Val Ser Ser Val His His Asn Ser Thr Leu Leu
      50           55           60
Arg Tyr Ser Val Ser Leu Leu Gly Tyr Gly Phe Tyr Gly Asp Ile Ile
      65           70           75           80
Lys Asp Ser Glu Lys Lys Arg Trp Leu Gly Leu Ala Arg Tyr Asp Phe
      85           90           95
Ser Gly Leu Lys Thr Phe Leu Ser His His Cys Tyr Glu Gly Thr Val
      100          105          110
Ser Phe Leu Pro Ala Gln His Thr Val Gly Ser Pro Arg Asp Arg Lys
      115          120          125
Pro Cys Arg Ala Gly Cys Phe Val Cys Arg Gln Ser Lys Gln Gln Leu
      130          135          140
Glu Glu Glu Gln Lys Lys Ala Leu Tyr Gly Leu Glu Ala Ala Glu Asp
      145          150          155          160
Val Glu Glu Trp Gln Val Val Cys Gly Lys Phe Leu Ala Ile Asn Ala
      165          170          175
Thr Asn Met Ser Cys Ala Cys Arg Arg Ser Pro Arg Gly Leu Ser Pro
      180          185          190
Ala Ala His Leu Gly Asp Gly Ser Ser Asp Leu Ile Leu Ile Arg Lys
      195          200          205
Cys Ser Arg Phe Asn Phe Leu Arg Phe Leu Ile Trp His Glu Val Cys
      210          215          220
Lys Lys Pro Leu
      225

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&lt;210&gt; 3173

&lt;211&gt; 573

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3173

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420

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 <211> 152  
 <212> PRT  
 <213> Homo sapiens

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 Val Ala Gln Tyr Phe Arg Glu Lys Tyr Thr Leu Gln Leu Lys Tyr Pro  
 50 55 60  
 His Leu Pro Cys Leu Gln Val Gly Gln Glu Lys His Thr Tyr Leu  
 65 70 75 80  
 Pro Leu Glu Val Cys Asn Ile Val Ala Gly Gln Arg Cys Ile Lys Lys  
 85 90 95  
 Leu Thr Asp Asn Gln Thr Ser Thr Met Ile Lys Ala Thr Ala Arg Ser  
 100 105 110  
 Ala Pro Asp Arg Gln Glu Glu Ile Ser Arg Leu Val Arg Ser Ala Asn  
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 <211> 92  
 <212> PRT  
 <213> Homo sapiens

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 Pro Asp Ala Trp Gly Leu Pro Thr Pro Gln Gln Ala Arg Gly Lys Ala  
 35 40 45  
 Arg Gly Asn Glu Tyr Gln Pro Ser Asn Ile Lys Arg Lys Asn Lys His  
 50 55 60  
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<210> 3177  
 <211> 1857  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 3178

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 <212> PRT  
 <213> Homo sapiens

<400> 3178  
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 50 55 60  
 Val Asn Ala Ser Ala Ser Cys His Val Leu Pro Thr Gly Asp Leu Leu  
 65 70 75 80  
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 Glu Gly Phe Gln Gln Leu Val Ala Ser Tyr Cys Pro Glu Val Val Glu  
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 Asp Gly Val Ala Asp Gln Thr Asp Glu Gly Gly Ser Val Pro Val Ile  
 115 120 125  
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 Arg Asn Ser Met Lys Val Phe Leu Lys Gln Gly Glu Cys Ala Ser Val  
 180 185 190  
 His Pro Lys Thr Cys Pro Val Val Leu Pro Pro Glu Thr Arg Pro Leu  
 195 200 205  
 Asn Gly Leu Gly Pro Pro Ser Thr Pro Leu Asp His Arg Gly Tyr Gln  
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 Ser Leu Ser Asp Ser Pro Pro Gly Ala Arg Val Phe Thr Glu Ser Glu  
 225 230 235 240  
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<210> 3179  
 <211> 3447  
 <212> DNA  
 <213> Homo sapiens

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<211> 127  
<212> PRT  
<213> Homo sapiens

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Ala Phe Thr Pro Thr Gly Lys Val Lys Leu Thr Phe Val Phe Leu Phe  
35 40 45  
Asn Asn Phe Met Ile Asn Lys Glu Leu Gln Leu Glu Thr Lys Ala Asn  
50 55 60  
Ser Arg Asn Ser Leu Thr Pro Ser Cys Pro Met Val Phe Met Ile Ala  
65 70 75 80  
Cys Tyr Gln Asn Glu Ala Leu Cys Ser Thr Leu Tyr Ser Lys Ala Phe  
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Tyr Ala Pro Thr Arg Pro Ser Gly Ile Pro Glu Ser Ala Leu His Thr  
100 105 110  
Gly Arg Lys Thr Ala Ser Ser Tyr Arg Leu Cys Glu Asn Thr Gln  
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<210> 3181  
<211> 287  
<212> DNA  
<213> Homo sapiens

<400> 3181  
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<210> 3182  
<211> 95  
<212> PRT  
<213> Homo sapiens

<400> 3182  
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Gly His Met Lys Gln Gly Gly Leu Leu Lys Asp Gly Trp Ala Ser Pro

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65						70					75				80
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<210> 3183
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<212> DNA
<213> Homo sapiens
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240
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960
caggaaaagt cttccgcccc agctggggagg ggagagtgtc catgcatgta ccagtcagg
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1080
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tccaaggaca ggtggaggta gggccagcct ggccgggagtg gagaagccca gtctgtccta
1200

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tgtaagggac aaagccaggc ctaatgggtac tgggtagggg gcactgccaa gacaataagc  
 1260  
 taggctactg ggtccagcta ctactttggt gggattcagg tgagtctcca tgcacttcac  
 1320  
 atgttaccca gtgttcttgt tacttccaag gagaaccaag aatggctctg tcacactcga  
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 aaaaaaaaaa aaaaaaa  
 1457

<210> 3184  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

<400> 3184  
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 Gln Thr Gln Leu Leu Val Pro Lys Lys Val Leu Pro Glu Ser Cys Arg  
 35 40 45  
 Leu Ser Trp Asn Leu Leu Gly Asp Glu Ala Ala Glu Leu Ala Gln  
 50 55 60  
 Val Leu Pro Gln Met Gly Arg Leu Lys Arg Val Asp Leu Glu Lys Asn  
 65 70 75 80  
 Gln Ile Thr Ala Leu Gly Ala Trp Leu Leu Ala Glu Gly Leu Ala Gln  
 85 90 95  
 Gly Ser Ser Ile Gln Val Ile Arg Leu Trp Asn Asn Pro Ile Pro Cys  
 100 105 110  
 Asp Met Ala Gln His Leu Lys Ser Gln Glu Pro Arg Leu Asp Phe Ala  
 115 120 125  
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 130 135 140

<210> 3185  
 <211> 1433  
 <212> DNA  
 <213> Homo sapiens

<400> 3185  
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 300  
 ccatgggggc cccaccttcc cagccagtga ggtagcatg gttaggagtc cacatgtgtg  
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caagtgccttg tgtggaggct catgtatgca tgtgtgtata tgcaaagctg cacatgacaa  
 420  
 tgtgcatgcc agtccagagt tagatgtacc tatgcagttg ccctcaagcg aagggtcata  
 480  
 tttggaaaca aggatggctc taaacatgta agcgtgcatg tgggcatgta tgtatctggg  
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 600  
 agggaggagt ggtgggaggg aaaggctggg cagagcaggg gaaggagtga aagccaggca  
 660  
 ggaaagtgga agaacaggag aagctcatgt aatggattac cctccacagg attatgttcc  
 720  
 ttgattctctg agagtttttt ctcttgattt taccctctca gtctatcact gcaagagaaa  
 780  
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 1433

&lt;210&gt; 3186

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3186

Met Pro Leu Leu Trp Phe Val Gln Val Thr Gly Val Pro Arg Pro Leu  
 1 5 10 15  
 His Asp Gln His Pro Val Val Gly Gln Leu Leu Gln Val Leu Lys Ala  
 20 25 30  
 Gly Leu Thr His Gly Val Leu Val Ser Ile Tyr Asn Gln Ser Trp Ser  
 35 40 45  
 Leu Arg Gly Arg Ile Gly Gly Trp Gly Arg Val Asn Arg Thr Cys His  
 50 55 60  
 Ser Ile Pro Ser Pro Pro His Phe Ser Leu Phe Leu Gly Pro Pro His  
 65 70 75 80  
 Met Arg Glu Arg Asp Lys Leu Ala Gln Trp Val Gly Ala Gln Ile Gly

85                      90                      95  
 Val Cys Pro Arg Thr Gln Phe Ser Thr Gly Leu Gly Thr Val Val Cys  
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<210> 3187  
 <211> 860  
 <212> DNA  
 <213> Homo sapiens

<400> 3187  
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 120  
 aagtggtcct cccgcctcgg ctcctcaggt agctgggatt acagatatgt tcctaaaaca  
 180  
 tccctgagtt caccaccttg gccagaagtt gttctgccag acccagttga ggagaccaga  
 240  
 caccatgcag aggtcgtgaa gaaggtgaat gagatgatcg tcacggggca gtatggcagg  
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 ttaattggaa atgaactaga ccttgctgtg ggagagagaa ttcgactgga gaaggtcctg  
 420  
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 ccaagaatca ttatgagatt caggaaaagg aaaaacttca agaagaaaag aagtaagta  
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 gagaaagtac cgctgggccc tgttgacagg tgctgggtgc ccaggcgcat gcggacggag  
 720  
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 860

<210> 3188  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 3188  
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 Asp Tyr Arg Tyr Val Pro Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro  
                     20                      25                      30  
 Glu Val Val Leu Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu  
                     35                      40                      45  
 Val Val Lys Lys Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg

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      50              55              60
Leu Phe Ala Val Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser
65              70              75              80
Glu Asp Leu Ile Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu
      85              90              95
Arg Ile Arg Leu Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr
      100              105              110
Leu Leu Gly Lys Pro Leu Leu Gly
      115              120

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<210> 3189  
 <211> 440  
 <212> DNA  
 <213> Homo sapiens

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<400> 3189
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120
gactccccct ctgggccagt gctgccctgc tttctctgtc tctttcagggt tgtgtgtgcc
180
gacctcacca aagtgacctg gatgcattgga atcgacctg tgggtgctggt cctgatgggtg
240
ggcatggtga tgttcacctt ggggttcgcc ggctgcgtgg gggctctgct ggagaatatc
300
tgcttgctca actttgtgag tggccacaga gacaagagtg ggatatgatg caatggggta
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cctccccctat ggccccctgcc
440

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<210> 3190  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

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<400> 3190
Gly His Gly Trp Gly Arg Thr Leu Ala Trp Leu Ser Thr Arg Gly Leu
1              5              10              15
Ser Leu Gly Lys Gln Val Pro Val Phe Ser Thr Thr Cys Ile Pro Gln
      20              25              30
Gly Ser Ile Leu Asp Ser Pro Ser Gly Pro Val Leu Pro Cys Phe Leu
      35              40              45
Cys Leu Phe Gln Gly Val Leu Ser Asp Leu Thr Lys Val Thr Arg Met
      50              55              60
His Gly Ile Asp Pro Val Val Leu Val Leu Met Val Gly Met Val Met
65              70              75              80
Phe Thr Leu Gly Phe Ala Gly Cys Val Gly Ala Leu Arg Glu Asn Ile
      85              90              95
Cys Leu Leu Asn Phe Val Ser Gly His Arg Asp Lys Ser Gly Ile
      100              105              110

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<210> 3191  
<211> 266  
<212> DNA  
<213> Homo sapiens

<400> 3191  
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120  
aacagcagga caatccacac ttccgtagcc tcctggggtc ggccgccgag ccagcccggg  
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gcccgccgcc ccagcaccgc ttgcagggca gaaaagagaa gagagttgac aacatcgaga  
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266

<210> 3192  
<211> 84  
<212> PRT  
<213> Homo sapiens

<400> 3192  
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Cys Asn Gly Cys Trp Gly Gly Gly Pro Arg Ala Gly Ser Ala Ala Asp  
20 25 30  
Pro Arg Arg Leu Arg Lys Cys Gly Leu Ser Cys Cys Ser Leu Arg Ser  
35 40 45  
Arg Glu Ser Lys Asp Asp Pro Trp Gln Phe Ser Asp Cys Arg Lys Arg  
50 55 60  
Ser Arg Ser Met Ala Gln Val Ala Asp Thr Glu Gln Gly Thr Ile Ser  
65 70 75 80  
Pro Ser Ala Ser

<210> 3193  
<211> 567  
<212> DNA  
<213> Homo sapiens

<400> 3193  
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tggagtgagt tgttttgccc ctctgagcct cagtttctcc atctgtgaaa tggggacaac  
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240  
gagtcagcgg ttcatgcttt gcatgcaaag tgcccagccc ctggctcaaa gtctgtgttc  
300  
atccagacct ggggttaacta ctgtcttcct tatgttgttc ctgtggggac gcctggggct  
360

gctggcctcg tgattcctct ctttccctgc aggccacggt tcacctactt ccccttctcc  
 420  
 ctgggccacc gtcctgcat cgggcagcag tttgctcaga tggaggtgaa ggtggtcatg  
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 540  
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 567

<210> 3194  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 3194  
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 Lys Cys Pro Ala Pro Gly Ser Lys Ser Val Phe Ile Gln Thr Trp Val  
 20 25 30  
 Asn Tyr Cys Leu Pro Tyr Val Val Pro Val Gly Thr Pro Gly Ala Ala  
 35 40 45  
 Gly Leu Val Ile Pro Leu Phe Pro Cys Arg Pro Arg Phe Thr Tyr Phe  
 50 55 60  
 Pro Phe Ser Leu Gly His Arg Ser Cys Ile Gly Gln Gln Phe Ala Gln  
 65 70 75 80  
 Met Glu Val Lys Val Val Met Ala Lys Leu Leu Gln Arg Leu Glu Phe  
 85 90 95  
 Arg Leu Val Pro Gly Gln Arg Phe Gly Leu Gln Glu Gln Ala Thr Leu  
 100 105 110  
 Lys Pro Leu Asp  
 115

<210> 3195  
 <211> 987  
 <212> DNA  
 <213> Homo sapiens

<400> 3195  
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 agccccagac acctacctcc ttggctggat cagccaaagg tgggcaagac ggttcacagc  
 180  
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 240  
 ccattttgaa gaagagcccc gagcccaagg aggatccccgc tcacctgtct gactcgtcct  
 300  
 catcctccgg ctccatcgty tccttcaaaa gtgctgacag catcaaaagt cgaccaggaa  
 360  
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 420  
 cggggaggaa agacgacgat gttgcgagca taatgaagaa atacctccag aagtaggaac  
 480



cagttcagcc tccttgaagc tgcccttgaa gacttcccga ctctacaata acttgagagac  
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 720  
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 960  
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 987

<210> 3196

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3196

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	20						25					30			
Ala	Ile	Arg	Lys	Pro	Gln	Thr	Pro	Thr	Ser	Leu	Ala	Gly	Ser	Ala	Lys
	35					40					45				
Gly	Gly	Gln	Asp	Gly	Ser	Gln	Arg	Ser	Ser	Ile	His	Phe	Glu	Thr	Glu
	50				55					60					
Glu	Ala	Asn	Arg	Ser	Phe	Leu	Ser	Gly	Ile	Lys	Thr	Ile	Leu	Lys	Lys
65				70				75						80	
Ser	Pro	Glu	Pro	Lys	Glu	Asp	Pro	Ala	His	Leu	Ser	Asp	Ser	Ser	Ser
			85					90					95		
Ser	Ser	Gly	Ser	Ile	Val	Ser	Phe	Lys	Ser	Ala	Asp	Ser	Ile	Lys	Ser
	100							105					110		
Arg	Pro	Gly	Ile	Pro	Arg	Leu	Ala	Gly	Asp	Gly	Gly	Glu	Arg	Thr	Ser
	115					120						125			
Pro	Glu	Arg	Arg	Glu	Pro	Gly	Thr	Gly	Arg	Lys	Asp	Asp	Asp	Val	Ala
	130					135						140			
Ser	Ile	Met	Lys	Lys	Tyr	Leu	Gln	Lys							
145						150									

<210> 3197

<211> 5575

<212> DNA

<213> Homo sapiens

<400> 3197

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agagcaatgg cgacactgga tcgcaaagtg cccagtcgg aggcgtttct gggcaaacc  
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4260  
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4320  
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4380  
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4620  
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4860  
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4920

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 4980  
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 5575

<210> 3198

<211> 833

<212> PRT

<213> Homo sapiens

<400> 3198

Met	Ala	Thr	Leu	Asp	Arg	Lys	Val	Pro	Ser	Pro	Glu	Ala	Phe	Leu	Gly
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Lys	Pro	Trp	Ser	Ser	Trp	Ile	Asp	Ala	Ala	Lys	Leu	His	Cys	Ser	Asp
			20				25						30		
Asn	Val	Asp	Leu	Glu	Glu	Ala	Gly	Lys	Glu	Gly	Gly	Lys	Ser	Arg	Glu
		35					40					45			
Val	Met	Arg	Leu	Asn	Lys	Glu	Asp	Met	His	Leu	Phe	Gly	His	Tyr	Pro
		50				55					60				
Ala	His	Asp	Asp	Phe	Tyr	Leu	Val	Val	Cys	Ser	Ala	Cys	Asn	Gln	Val
65					70					75				80	
Val	Lys	Pro	Gln	Val	Phe	Gln	Ser	His	Cys	Glu	Arg	Arg	His	Gly	Ser
			85						90					95	
Met	Cys	Arg	Pro	Ser	Pro	Ser	Pro	Val	Ser	Pro	Ala	Ser	Asn	Pro	Arg
			100					105					110		
Thr	Ser	Leu	Val	Gln	Val	Lys	Thr	Lys	Ala	Cys	Leu	Ser	Gly	His	His
			115				120					125			
Ser	Ala	Ser	Ser	Thr	Ser	Lys	Pro	Phe	Lys	Thr	Pro	Lys	Asp	Asn	Leu
			130			135					140				
Leu	Thr	Ser	Ser	Ser	Lys	Gln	His	Thr	Val	Phe	Pro	Ala	Lys	Gly	Ser
145					150					155				160	
Arg	Asp	Lys	Pro	Cys	Val	Pro	Val	Pro	Val	Ser	Leu	Glu	Lys	Ile	
			165					170					175		
Pro	Asn	Leu	Val	Lys	Ala	Asp	Gly	Ala	Asn	Val	Lys	Met	Asn	Ser	Thr
			180				185					190			
Thr	Thr	Thr	Ala	Val	Ser	Ala	Ser	Pro	Thr	Ser	Ser	Ser	Ala	Val	Ser

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      195              200              205
Thr Pro Pro Leu Ile Lys Pro Val Leu Met Ser Lys Ser Val Pro Pro
210              215              220
Ser Pro Glu Lys Ile Leu Asn Gly Lys Gly Ile Leu Pro Thr Thr Ile
225              230              235              240
Asp Lys Lys His Gln Asn Gly Thr Lys Asn Ser Asn Lys Pro Tyr Arg
      245              250              255
Arg Leu Ser Glu Arg Glu Phe Asp Pro Asn Lys His Cys Gly Val Leu
260              265              270
Asp Pro Glu Thr Lys Lys Pro Cys Thr Arg Ser Leu Thr Cys Lys Thr
275              280              285
His Ser Leu Ser His Arg Arg Ala Val Pro Gly Arg Lys Lys Gln Phe
290              295              300
Asp Leu Leu Leu Ala Glu His Lys Ala Lys Ser Arg Glu Lys Glu Val
305              310              315              320
Lys Asp Lys Glu His Leu Leu Thr Ser Thr Arg Glu Ile Leu Pro Ser
      325              330              335
Gln Ser Gly Pro Ala Gln Asp Ser Leu Leu Gly Ser Ser Gly Ser Ser
340              345              350
Gly Pro Glu Pro Lys Val Ala Ser Pro Ala Lys Ser Arg Pro Pro Asn
355              360              365
Ser Val Leu Pro Arg Pro Ser Ser Ala Asn Ser Ile Ser Ser Ser Thr
370              375              380
Ser Ser Asn His Ser Gly His Thr Pro Glu Pro Pro Leu Pro Pro Val
385              390              395              400
Gly Gly Asp Leu Ala Ser Arg Leu Ser Ser Asp Glu Gly Glu Met Asp
      405              410              415
Gly Ala Asp Glu Ser Glu Lys Leu Asp Cys Gln Phe Ser Thr His His
420              425              430
Pro Arg Pro Leu Ala Phe Cys Ser Phe Gly Ser Arg Leu Met Gly Arg
435              440              445
Gly Tyr Tyr Val Phe Asp Arg Arg Trp Asp Arg Phe Arg Phe Ala Leu
450              455              460
Asn Ser Met Val Glu Lys His Leu Asn Ser Gln Met Trp Lys Lys Ile
465              470              475              480
Pro Pro Ala Ala Asp Ser Pro Met Pro Ser Pro Ala Ala His Ile Thr
      485              490              495
Thr Pro Val Pro Ala Ser Val Leu Gln Pro Phe Ser Asn Pro Ser Ala
500              505              510
Val Tyr Leu Pro Ser Ala Pro Ile Ser Ser Arg Leu Thr Ser Ser Tyr
515              520              525
Ile Met Thr Ser Ala Met Leu Ser Asp Ala Ala Phe Val Thr Ser Pro
530              535              540
Asp Pro Ser Ala Leu Met Ser His Thr Thr Ala Phe Pro His Val Ala
545              550              555              560
Ala Thr Leu Ser Ile Met Asp Ser Thr Phe Lys Ala Pro Ser Ala Val
565              570              575
Ser Pro Ile Pro Ala Val Ile Pro Ser Pro Ser His Lys Pro Ser Lys
580              585              590
Thr Lys Thr Ser Lys Ser Ser Lys Val Lys Asp Leu Ser Thr Arg Ser
595              600              605
Asp Glu Ser Pro Ser Asn Lys Lys Arg Lys Pro Gln Ser Ser Thr Ser
610              615              620
Ser Ser Ser Ser Ser Ser Ser Ser Ser Leu Gln Thr Ser Leu Ser Ser

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625          630          635          640
Pro Leu Ser Gly Pro His Lys Lys Asn Cys Val Leu Asn Ala Ser Ser
        645          650          655
Ala Leu Asn Ser Tyr Gln Ala Ala Pro Pro Tyr Asn Ser Leu Ser Val
        660          665          670
His Asn Ser Asn Asn Gly Val Ser Pro Leu Ser Ala Lys Leu Glu Pro
        675          680          685
Ser Gly Arg Thr Ser Leu Pro Gly Gly Pro Ala Asp Ile Val Arg Gln
        690          695          700
Val Gly Ala Val Gly Gly Ser Ser Asp Ser Cys Pro Leu Ser Val Pro
705          710          715          720
Ser Leu Ala Leu His Ala Gly Asp Leu Ser Leu Ala Ser His Asn Ala
        725          730          735
Val Ser Ser Leu Pro Leu Ser Phe Asp Lys Ser Glu Gly Lys Lys Arg
        740          745          750
Lys Asn Ser Ser Ser Ser Lys Ala Cys Lys Ile Thr Lys Met Pro
        755          760          765
Gly Met Asn Ser Val His Lys Lys Asn Pro Pro Ser Leu Leu Ala Pro
        770          775          780
Val Pro Asp Pro Val Asn Ser Thr Ser Ser Arg Gln Val Gly Lys Asn
785          790          795          800
Ser Ser Leu Ala Leu Ser Gln Ser Ser Pro Ser Ser Ile Ser Ser Pro
        805          810          815
Gly His Ser Arg Gln Asn Thr Asn Arg Thr Gly Arg Ile Arg Thr Leu
        820          825          830
Pro

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<210> 3199
<211> 777
<212> DNA
<213> Homo sapiens

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<400> 3199
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60
ctccagggtgc tggtaggggc cccagctctc tgcgaggctg tggctggacc aggcatacag
120
caagcagctc ccacagctgg cactggggaa cgtggtgaca ccagaagct tggagatgcc
180
aggaaccgca aggccccaaa gagagtgtca cagccctggc ttagggagct cctaggtctg
240
ggctgcccga agagcaaggc ctcttctctc cttctttctt ttctcttctt tgetacctgc
300
aacatggcga gcaaggggca tgtctcagcc ctgtttgtga tacagctctt ttagccctgc
360
catccagtgg gtcttgatgt cttgtccggc aaccaggaag aatgaggtag ccagacaagt
420
gtagagtgtc caagacaaag aggagcttta ctgagtgtga atagctcaga ggaggccctg
480
gagagggcag ttctcacta cagctggtca tccgacgtct gctcagctct ggctgagcct
540
ggggcttctg tcagcctcag agagggggaa gttcatgctg actggtccat gggcggccat
600

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gggcaggccc agaaaaggca acacaagttc gcactccagt ccacggcact gacagcctgg  
660  
ccccagcct tcaggggcctc cctggcctga aggtgggcct caccagggac tcacccctt  
720  
ctgcccagaa acctgtctgc ctctgctgc cattcatggc gccagggta taggtat  
777

<210> 3200

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3200

Met	Leu	Gln	Val	Ala	Arg	Arg	Arg	Lys	Glu	Arg	Arg	Lys	Glu	Glu	Pro
1				5					10					15	
Leu	Leu	Phe	Gly	Gln	Pro	Arg	Pro	Arg	Ser	Ser	Leu	Ser	Gln	Gly	Cys
			20					25					30		
Asp	Thr	Leu	Phe	Gly	Ala	Leu	Arg	Phe	Leu	Ala	Ser	Pro	Ser	Phe	Trp
			35				40					45			
Val	Ser	Pro	Arg	Ser	Pro	Val	Pro	Ala	Val	Gly	Ala	Ala	Cys	Cys	Met
			50			55				60					
Pro	Gly	Pro	Ala	Thr	Ala	Ser	Gln	Arg	Ala	Gly	Ala	Leu	Thr	Ser	Thr
65				70					75					80	
Trp	Ser	Cys	Leu	Pro	His	Cys	Ser	Ser	Arg	Arg	Val				
				85					90						

<210> 3201

<211> 390

<212> DNA

<213> Homo sapiens

<400> 3201

acacgcgcag tgcgtctect actgaaccgc agcccttgct atgggtacgc ggaagcagct  
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cccgtcgcgc ctgccccagg ctggacggaa gggccacgct gcagccgggg tgagcacagc  
120  
gaagccgaca gcctttggga ccgaggtcag cagctgcacc ggcgcaagaa ttccaaacac  
180  
agctgtggct gaagggcctg ggggtgtgca ggtcccaaac ccagtgagc ctgatcccga  
240  
catgggtcct gtctctctgg ggcacccctt gtgtcccgtg gtggctgacc ctgagaggga  
300  
gggctgtggg gatgctcaca tgacactggg gtcccagcga cagccctcc tcacgctgcg  
360  
tgtccctggg gcctctcagg agggacgcgt  
390

<210> 3202

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3202

Met Gly Thr Arg Lys Gln Leu Pro Ser Arg Leu Pro Gln Ala Gly Arg



1	5	10	15
Lys Gly His	Ala Ala Ala Gly Val	Ser Thr Ala Lys	Pro Thr Ala Phe
	20	25	30
Gly Thr Glu	Val Ser Ser Cys Thr	Gly Ala Arg Ile	Pro Asn Thr Ala
	35	40	45
Val Ala Glu	Gly Pro Gly Gly Val	Gln Val Pro Asn	Pro Ser Glu Pro
	50	55	60
Asp Pro Asp	Met Gly Pro Val Ser	Trp Gly Pro Pro	Leu Cys Pro Val
	65	70	75
Val Ala Asp	Pro Glu Arg Glu Gly	Cys Gly Asp Ala	His Met Thr Leu
	85	90	95
Gly Ser Gln	Arg Gln Pro Leu Leu	Thr Leu Arg Val	Pro Gly Ala Ser
	100	105	110
Gln Glu Gly	Arg		
	115		

&lt;210&gt; 3203

&lt;211&gt; 1906

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3203

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ngaattcggc acgagctcgt gccgaatcgg cacgagcgcg ggcccaggag cggcaggact
60
cgggcccggag cgtggccgga cccccaccg cagaggggccc caggaggagac gcggcagagt
120
cacggtggca gcattgagag ttggacaccc gggtccttga agtgatctct agggcccgagc
180
cccaaatccg ccaccattcc gtgctgcggg gacaccatgg ctccagaaga ggacgctgga
240
ggggaggcct tagggggcag tttctgggag gctggcaact acaggcgcac ggtacagcgg
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360
atcgagaagg cttatgccca gcagttggct gactgggccc gaaagtggag ggggaccgtg
420
gagaagggcc ccagtatgg cactactggg aaggcctggc atgccttttt caccggcggt
480
gagcggctga gcgcgctgca cctggaggtg cgggagaagc tgcaagggca ggacagtgag
540
cgggtgcgcg cctggcagcg gggggctttc caccggcctg tgctgggcgg cttccgcgag
600
agccggggcg cagaggacgg cttccgcaag gcccagaagc cctggctgaa gaggctgaag
660
gagggtgagg cttccaagaa aagctaccac gcagcccgga aggatgagaa gaccgcccag
720
acgagggaga gccacgcaaa ggcagacagc gccgtctccc aggagcagct gcgcaaactg
780
caggaacggg tggaacgctg tgccaaggag gccgagaaga caaaagctca gtatgagcag
840
acgctggcag agctgcatcg ctacactcca cgctacatgg aggacatgga acaggccttt
900
gagacctgcc agggccgcca gcgccagcgg cttcttttct tcaaggatat gctgctcacc
960

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ttacaccagc acctggacct ttccagcagt gagaagttcc atgaactcca ccgtgacttg  
 1020  
 caccaggcca ttgaggcagc cagtgacgaa gaggatctgc gctggtggcg cagcaccac  
 1080  
 gggccaggca tggccatgaa ctggccacag ttcgaggagt ggtccttgga cacacagagg  
 1140  
 acaatcagcc ggaaagagaa ggggtggccg agccctgatg aggttaccct gaccagcatt  
 1200  
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 1260  
 caggatgagg agtggtcaga tgaagagagt ccccggaagg ctgccaccgg ggttcgggtg  
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 1440  
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 1800  
 ttgggggtgag tgtagttctg gcctagcagc accctcttgt ggcttgttct agcgtgtatt  
 1860  
 aaaacttgac acacaccac acacaaaaac aaaaacacca aaaaaa  
 1906

<210> 3204

<211> 424

<212> PRT

<213> Homo sapiens

<400> 3204

Met Ala Pro Glu Glu Asp Ala Gly Gly Glu Ala Leu Gly Gly Ser Phe  
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 Trp Glu Ala Gly Asn Tyr Arg Arg Thr Val Gln Arg Val Glu Asp Gly  
 20 25 30  
 His Arg Leu Cys Gly Asp Leu Val Ser Cys Phe Gln Glu Arg Ala Arg  
 35 40 45  
 Ile Glu Lys Ala Tyr Ala Gln Gln Leu Ala Asp Trp Ala Arg Lys Trp  
 50 55 60  
 Arg Gly Thr Val Glu Lys Gly Pro Gln Tyr Gly Thr Leu Glu Lys Ala  
 65 70 75 80  
 Trp His Ala Phe Phe Thr Ala Ala Glu Arg Leu Ser Ala Leu His Leu  
 85 90 95  
 Glu Val Arg Glu Lys Leu Gln Gly Gln Asp Ser Glu Arg Val Arg Ala  
 100 105 110  
 Trp Gln Arg Gly Ala Phe His Arg Pro Val Leu Gly Gly Phe Arg Glu

```

      115      120      125
Ser Arg Ala Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro Trp Leu
130      135      140
Lys Arg Leu Lys Glu Val Glu Ala Ser Lys Lys Ser Tyr His Ala Ala
145      150      155      160
Arg Lys Asp Glu Lys Thr Ala Gln Thr Arg Glu Ser His Ala Lys Ala
      165      170      175
Asp Ser Ala Val Ser Gln Glu Gln Leu Arg Lys Leu Gln Glu Arg Val
      180      185      190
Glu Arg Cys Ala Lys Glu Ala Glu Lys Thr Lys Ala Gln Tyr Glu Gln
      195      200      205
Thr Leu Ala Glu Leu His Arg Tyr Thr Pro Arg Tyr Met Glu Asp Met
      210      215      220
Glu Gln Ala Phe Glu Thr Cys Gln Ala Ala Glu Arg Gln Arg Leu Leu
      225      230      235      240
Phe Phe Lys Asp Met Leu Leu Thr Leu His Gln His Leu Asp Leu Ser
      245      250      255
Ser Ser Glu Lys Phe His Glu Leu His Arg Asp Leu His Gln Gly Ile
      260      265      270
Glu Ala Ala Ser Asp Glu Glu Asp Leu Arg Trp Trp Arg Ser Thr His
      275      280      285
Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp Ser Leu
      290      295      300
Asp Thr Gln Arg Thr Ile Ser Arg Lys Glu Lys Gly Gly Arg Ser Pro
      305      310      315      320
Asp Glu Val Thr Leu Thr Ser Ile Val Pro Thr Arg Asp Gly Thr Ala
      325      330      335
Pro Pro Pro Gln Ser Pro Gly Ser Pro Gly Thr Gly Gln Asp Glu Glu
      340      345      350
Trp Ser Asp Glu Glu Ser Pro Arg Lys Ala Ala Thr Gly Val Arg Val
      355      360      365
Arg Ala Leu Tyr Asp Tyr Ala Gly Gln Glu Ala Asp Glu Leu Ser Phe
      370      375      380
Arg Ala Gly Glu Glu Leu Leu Lys Met Ser Glu Glu Asp Glu Gln Gly
      385      390      395      400
Trp Cys Gln Gly Gln Leu Gln Ser Gly Arg Ile Gly Leu Tyr Pro Ala
      405      410      415
Asn Tyr Val Glu Cys Val Gly Ala
      420

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&lt;210&gt; 3205

&lt;211&gt; 1482

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3205

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nnggagatgg aggggaacctc cccgagcagc ccaccaccca gtgggggtgcg gtcccccccg
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120
ctgttgacac ccacaggaga gccccggagc tatgtggagt ctgtggcacg gacagcggtg
180
gctggacccc gagctcagga ctctgagccc aagagcttta gtgctccagc caccaggccc
240

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tatggccatg agataccctt gaggaacggg accctgggtg gctccttgt cttccccagc  
 300  
 cccctctcca ccagcagccc catcctcagt gctgacagca cttcagtggg gagtttcccg  
 360  
 tcgggagaga gcagtgaacca ggggtccccg acgcccaccc agcctctgtt ggagtctggc  
 420  
 ttccgctcag gcagcctggg acagcccagc ccgtctgccc agagaaacta ccagagctct  
 480  
 tctcctctcc cgactgtggg cagtagctac agcagcccg actactcact tcagcatttc  
 540  
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 660  
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 720  
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 780  
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 840  
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 900  
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 960  
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 1020  
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 1080  
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 1260  
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 1320  
 gtcgccagcg gcagtgtccag tccagtggg ggcagcaccg tctccttctc ccacactctg  
 1380  
 cccgacttct ccaagtactc catgccagac aacagcccgg agacgcgggc taaagtgaag  
 1440  
 tttgtccagg acacttctaa gtattggtac aagcctaaga tc  
 1482

<210> 3206

<211> 494

<212> PRT

<213> Homo sapiens

<400> 3206

Xaa Glu Met Glu Gly Thr Ser Pro Ser Ser Pro Pro Pro Ser Gly Val  
 1 5 10 15  
 Arg Ser Pro Pro Gly Leu Ala Lys Thr Pro Leu Ser Ala Leu Gly Leu  
 20 25 30  
 Lys Pro His Asn Pro Ala Asp Ile Leu Leu His Pro Thr Gly Glu Pro

```

      35      40      45
Arg Ser Tyr Val Glu Ser Val Ala Arg Thr Ala Val Ala Gly Pro Arg
50      55      60
Ala Gln Asp Ser Glu Pro Lys Ser Phe Ser Ala Pro Ala Thr Gln Ala
65      70      75      80
Tyr Gly His Glu Ile Pro Leu Arg Asn Gly Thr Leu Gly Gly Ser Phe
85      90      95
Val Ser Pro Ser Pro Leu Ser Thr Ser Ser Pro Ile Leu Ser Ala Asp
100      105      110
Ser Thr Ser Val Gly Ser Phe Pro Ser Gly Glu Ser Ser Asp Gln Gly
115      120      125
Pro Arg Thr Pro Thr Gln Pro Leu Leu Glu Ser Gly Phe Arg Ser Gly
130      135      140
Ser Leu Gly Gln Pro Ser Pro Ser Ala Gln Arg Asn Tyr Gln Ser Ser
145      150      155      160
Ser Pro Leu Pro Thr Val Gly Ser Ser Tyr Ser Ser Pro Asp Tyr Ser
165      170      175
Leu Gln His Phe Ser Ser Ser Pro Glu Ser Gln Ala Arg Ala Gln Phe
180      185      190
Ser Val Ala Gly Val His Thr Val Pro Gly Ser Pro Gln Ala Arg His
195      200      205
Arg Thr Val Gly Thr Asn Thr Pro Pro Ser Pro Gly Phe Gly Trp Arg
210      215      220
Ala Ile Asn Pro Ser Met Ala Ala Pro Ser Ser Pro Ser Leu Ser His
225      230      235      240
His Gln Met Met Gly Pro Pro Gly Thr Gly Phe His Gly Ser Thr Val
245      250      255
Ser Ser Pro Gln Ser Ser Ala Ala Thr Thr Pro Gly Ser Pro Ser Leu
260      265      270
Cys Arg His Pro Ala Gly Val Tyr Gln Val Ser Gly Leu His Asn Lys
275      280      285
Val Ala Thr Thr Pro Gly Ser Pro Ser Leu Gly Arg His Pro Gly Ala
290      295      300
His Gln Gly Asn Leu Ala Ser Gly Leu His Ser Asn Ala Ile Ala Ser
305      310      315      320
Pro Gly Ser Pro Ser Leu Gly Arg His Leu Gly Gly Ser Gly Ser Val
325      330      335
Val Pro Gly Ser Pro Cys Leu Asp Arg His Val Ala Tyr Gly Gly Tyr
340      345      350
Ser Thr Pro Glu Asp Arg Arg Pro Thr Leu Ser Arg Gln Ser Ser Ala
355      360      365
Ser Gly Tyr Gln Ala Pro Ser Thr Pro Ser Phe Pro Val Ser Pro Ala
370      375      380
Tyr Tyr Pro Gly Leu Ser Ser Pro Ala Thr Ser Pro Ser Pro Asp Ser
385      390      395      400
Ala Ala Phe Arg Gln Gly Ser Pro Thr Pro Ala Leu Pro Glu Lys Arg
405      410      415
Arg Met Ser Val Gly Asp Arg Ala Gly Ser Leu Pro Asn Tyr Ala Thr
420      425      430
Ile Asn Gly Lys Val Ser Ser Pro Val Ala Ser Gly Met Ser Ser Pro
435      440      445
Ser Gly Gly Ser Thr Val Ser Phe Ser His Thr Leu Pro Asp Phe Ser
450      455      460
Lys Tyr Ser Met Pro Asp Asn Ser Pro Glu Thr Arg Ala Lys Val Lys

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465                      470                      475                      480  
 Phe Val Gln Asp Thr Ser Lys Tyr Trp Tyr Lys Pro Lys Ile  
                          485                      490

<210> 3207  
 <211> 495  
 <212> DNA  
 <213> Homo sapiens

<400> 3207  
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 120  
 ctgtcgcgca agctgcataa gatcctggag acgcggctgg acaacgacaa ggagatgtta  
 180  
 gaagctctca aggcactttc aacctttttt gttgaaaata gtctgcggac tcgaagaaat  
 240  
 ttacgtggag atattgaacg taaaagttaa gccatcaatg aagaatttgt aagcattttc  
 300  
 aagggaagtga aggaggaact tgaaagcata agcgaagatg ttcaagcaat gagcaactgt  
 360  
 tgtcaagata tgacaagtcg cctacaggca gcaaaggaac agactcaaga tttaatagta  
 420  
 aataccacta agcttcaatc tgaaagccaa aaattagaga taagagctca agttgcagat  
 480  
 gccttcttat ccaag  
 495

<210> 3208  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 3208  
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 Leu Arg Thr Arg Arg Asn Leu Arg Gly Asp Ile Glu Arg Lys Ser Leu  
                          20                      25                      30  
 Ala Ile Asn Glu Glu Phe Val Ser Ile Phe Lys Glu Val Lys Glu Glu  
                          35                      40                      45  
 Leu Glu Ser Ile Ser Glu Asp Val Gln Ala Met Ser Asn Cys Cys Gln  
                          50                      55                      60  
 Asp Met Thr Ser Arg Leu Gln Ala Ala Lys Glu Gln Thr Gln Asp Leu  
 65                      70                      75                      80  
 Ile Val Asn Thr Thr Lys Leu Gln Ser Glu Ser Gln Lys Leu Glu Ile  
                          85                      90                      95  
 Arg Ala Gln Val Ala Asp Ala Phe Leu Ser Lys  
                          100                      105

<210> 3209  
 <211> 346  
 <212> DNA  
 <213> Homo sapiens

<400> 3209  
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 tgcgtccagc cttgtccctt ctgacctggg cctaccacac ggggaaatgt tcccatagca  
 120  
 gaagaatcag cccacacagt caggggtgtg ttagtgggga acgggctctg ggctcctgtg  
 180  
 ggaaccaggg acccctatc ttggtaccgg tcattggatg tatccccagc tcatgcctgt  
 240  
 gtctgtcttg gcccggtgtg tcaccctgtg ttcattcttc tccagccat ggcctctcaa  
 300  
 actgggggtt tcgtctccct atgagggggg cctgggtatgt acgcgt  
 346

<210> 3210

<211> 95

<212> PRT

<213> Homo sapiens

<400> 3210  
 Met Arg Pro Ala Leu Ser Leu Leu Thr Trp Ala Leu Pro Thr Gly Lys  
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 Cys Ser His Ser Arg Arg Ile Ser Pro Thr Val Gln Gly Cys Val Ser  
 20 25 30  
 Gly Glu Arg Ala Leu Gly Ser Cys Gly Asn Gln Gly Pro Pro Ile Leu  
 35 40 45  
 Val Pro Val Ile Gly Cys Ile Pro Ser Ser Cys Leu Cys Leu Ser Trp  
 50 55 60  
 Pro Val Trp Ser Pro Cys Val His Leu Ser Pro Ser His Gly Leu Ser  
 65 70 75 80  
 Asn Trp Gly Phe Arg Leu Pro Met Arg Gly Ser Trp Tyr Val Arg  
 85 90 95

<210> 3211

<211> 1728

<212> DNA

<213> Homo sapiens

<400> 3211  
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 120  
 gtttccttgg ccacgtgca agccagtcgg aaggaccagg gactctatta ctgctgcatc  
 180  
 aagaacagct acggaaaagt gactgctgaa tttaacctca cagctgaagt tctcaaacag  
 240  
 ctgtcaagtc acacagaata ctaaaggatg tgaagagatt gaattcagcc aactcatctt  
 300  
 caaagaagac ttcctccatg acagctactt tgggggcccgc ctgctgggtc agatcgccac  
 360  
 ggaggagctg cactttggag aaggggttca ccgcaaagcc ttccgcagca cagtgatgca  
 420

cggcctcatg cctgtcttca aacctggcca tgcctgtgtg ctttaagggtgc acaatgccat  
 480  
 tgcctatggg accagaaaata atgatgagct catccaaagg aactacaaac tcgctgcccc  
 540  
 ggaatgctat gttcaaaaata ctgccaggta ttatgccaaag atctacgctg ctgaagcaca  
 600  
 gccctctggaa ggctttggag aagtacctga gatcattcct atttttctta tccatcgccc  
 660  
 tgagaacaat atccccgtatg ctacagtggg ggaggagctg attggagaat ttgtgaagta  
 720  
 ttccatcagg gatgggaaaag aaataaaactt cttgagaaga gaatcagaag ctggtcagaa  
 780  
 atgttgacc ttccagcact ggggtgtacca gaaaacaagt ggctgcctcc tggtgacgga  
 840  
 catgcaaggt gtaggaatga agctaactga cgttggcata gcaacgctgg ctaaagggtg  
 900  
 caagggattt aaaggcaact gttccatgac cttcattgat cagtttaaag cactacacca  
 960  
 gtgtaacaag tattgcaaaa tgctgggact gaaatccctt caaaacaaca accagaaaaca  
 1020  
 gaagcagccg agcattggga aaagcaaaagt tcaaaacaac tctatgacag taaagaaggc  
 1080  
 agggcctgag accccaggcg aaaagaaaac ctaacgtccc cgggtaacct aatggccact  
 1140  
 ggctagcagc acacaatctc gccagggaaa atctgaggcc acacaggaga gaatatacag  
 1200  
 cctgcagaga gtgcgtggca atccttactc ccagccgact gtgcgccaag atgcttctaa  
 1260  
 acccatcacc tgcgtctctc actcaaatga tttcagaaca ggatttgcga ccaggtttat  
 1320  
 gggggagattg aatcaacgat tgggtctcaa gacagtccat tctttatata catgttttagc  
 1380  
 atttttacca acctcacatc atgtgtatat ttgtgtattt gcacatgggt gtgctgtcga  
 1440  
 ggacctgggt ctgagaagag tctgttcaca gccaaaatc tccccactgt cattcctaac  
 1500  
 ctgggatttc tagacacatc ctgctgtgat gtaaacagaa atcacgaatt cgctcactgg  
 1560  
 atcaagttgt tccactggtg tctaatacgc tattgttgcc ggagggtgggt tctgtgacgt  
 1620  
 gaagccattt cccatcatc aacagccagt tacaattttc tgtttaatta aattcatatt  
 1680  
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 1728

<210> 3212

<211> 87

<212> PRT

<213> Homo sapiens

<400> 3212

Ser Gly Asn Ile Lys Leu Ser Tyr Gln Phe Ser Glu Ile His Glu Asp

1 5 10 15

Ser Thr Val Cys Trp Thr Lys Asp Ser Lys Ser Ile Ala Gln Ala Lys



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      20      25      30
Lys Ser Ala Gly Asp Asn Ser Ser Val Ser Leu Ala Ile Val Gln Ala
      35      40      45
Ser Pro Lys Asp Gln Gly Leu Tyr Tyr Cys Cys Ile Lys Asn Ser Tyr
      50      55      60
Gly Lys Val Thr Ala Glu Phe Asn Leu Thr Ala Glu Val Leu Lys Gln
      65      70      75      80
Leu Ser Ser His Thr Glu Tyr
      85

```

<210> 3213  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

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<400> 3213
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120
gataaacatg cccaactcat cttggcccaa atcaataaga tgagaaatgg acagcatttc
180
tgtgatgtgc agctgcaagt tggacaggaa agtttttaaag ctcatcggct ggttttggct
240
gccagcagtc cttactttgc agctttgttc actggaggaa tgaaagagtc ctcaaagat
300
gttgtagcga ttctaggaat tgaagcagga atctttcaga tacttcta
348

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<210> 3214  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

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<400> 3214
Met Ala Asn Glu Asp Cys Pro Lys Ala Ala Asp Ser Pro Phe Ser Ser
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Asp Lys His Ala Gln Leu Ile Leu Ala Gln Ile Asn Lys Met Arg Asn
      20      25      30
Gly Gln His Phe Cys Asp Val Gln Leu Gln Val Gly Gln Glu Ser Phe
      35      40      45
Lys Ala His Arg Leu Val Leu Ala Ala Ser Ser Pro Tyr Phe Ala Ala
      50      55      60
Leu Phe Thr Gly Gly Met Lys Glu Ser Ser Lys Asp Val Val Pro Ile
      65      70      75      80
Leu Gly Ile Glu Ala Gly Ile Phe Gln Ile Leu Leu
      85      90

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<210> 3215  
 <211> 597  
 <212> DNA  
 <213> Homo sapiens

<400> 3215

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 120  
 accttcaagt tcgacttgga cggggacgca cccgatgaaa ttgccacgta tatggtggag  
 180  
 catgacttta tcttgcaggc cgagcgggaa acgttcatcg agcagatgaa ggatgtcatg  
 240  
 gacaaggcag aggacatgct cagcaggagc acagacgccg accgtggctc cgaccagggg  
 300  
 accagccccg cacacctcag cacctgcggc ctgggcaccg gggaggagag cgcacaatcc  
 360  
 caagccaacg cccccgtgta tcagcagaac gtcttcacac cggggaagag gtggttcac  
 420  
 atctgtccgg tgcttgagcc ccccgcccc gagggccctt gaattctcgc ccccaattcc  
 480  
 tctaagctcc ctgcccccag aagccagcca agattcagcg ccctataaag accagctgtc  
 540  
 ctcgaaggaa caaccagct ttctagccag tcagcagctc ctgggcccagg cgggccc  
 597

<210> 3216

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3216

Thr	Arg	Ala	Arg	Ser	Arg	Gln	Glu	Arg	Ala	Ser	Arg	Pro	Arg	Leu	Thr
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Ile	Leu	Asn	Val	Cys	Asn	Thr	Gly	Asp	Lys	Met	Val	Glu	Cys	Gln	Leu
			20					25					30		
Glu	Thr	His	Asn	His	Lys	Met	Val	Thr	Phe	Lys	Phe	Asp	Leu	Asp	Gly
		35				40					45				
Asp	Ala	Pro	Asp	Glu	Ile	Ala	Thr	Tyr	Met	Val	Glu	His	Asp	Phe	Ile
	50				55					60					
Leu	Gln	Ala	Glu	Arg	Glu	Thr	Phe	Ile	Glu	Gln	Met	Lys	Asp	Val	Met
65				70				75					80		
Asp	Lys	Ala	Glu	Asp	Met	Leu	Ser	Glu	Asp	Thr	Asp	Ala	Asp	Arg	Gly
		85						90					95		
Ser	Asp	Pro	Gly	Thr	Ser	Pro	Pro	His	Leu	Ser	Thr	Cys	Gly	Leu	Gly
		100						105					110		
Thr	Gly	Glu	Glu	Ser	Arg	Gln	Ser	Gln	Ala	Asn	Ala	Pro	Val	Tyr	Gln
		115				120						125			
Gln	Asn	Val	Leu	His	Thr	Gly	Lys	Arg	Trp	Phe	Ile	Ile	Cys	Pro	Val
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Pro	Glu	Pro	Pro	Ala	Pro	Glu	Gly	Pro							
145					150										

<210> 3217

<211> 2570

<212> DNA

<213> Homo sapiens

<400> 3217

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120  
accataacca ggcactatga gctttacagg cgctgcaaac tggaggaaat gggctttaca  
180  
gatgtggggcc cagaaaacaa gccagtcagt gttcaagaga cctatgaagc caaaagacat  
240  
gagttccatg gtgaacgtca gaggaaggaa gaagaaatga aacagatggt tgtgcagcga  
300  
gtaaaggaga aagaagccat attgaaagaa gctgagagag agctacaggc caaatttgag  
360  
caccttaaga gacttcacca agaagagaga atgaagcttg aagaacaaag aagacttttg  
420  
gaagaagaaa taattgcttt ctctaaaaag aaagctacct ccgagatatt tcacagccag  
480  
tcctttctgg caacaggcag caacctgagt aaggacaagg accataagaa ctccaatttt  
540  
ttgtaaaaca gaagtccag agcacagaag gtcacatca caagcaaact ttattaaaaa  
600  
aaaactagaa gtgtgctttg attttgctgt tatttgtttt atcacttcta tatttggtga  
660  
acagccacag ttactgatat ttatggaaaa gtactttcaa gtacaaggtc aatacataag  
720  
ccagagtga tgaactaca agttgagcat ctctaattca aaaatctgaa atccagaagc  
780  
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840  
gacacctttg ctttctgatg gttcagttta aacagatttt gtttcttgca caaaattttt  
900  
gtataaatta ctttcaggct atatgtataa ggtggatgtg aaacatgaat tatgtaatta  
960  
gagtcgggtc ccgttggtga tatgcagata ttccaaacct gaaatccaaa acacttctgg  
1020  
tccctagcat ttgggataag ggatactcag cttgtaccta tatattcata tatattcact  
1080  
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1140  
aagctattgt cactgcagtg cattatacca aagagcgaag tcagtccac tgaaaataca  
1200  
gaaccatta atatcgtggc tatctgatta catttatatt ccaagatgaa ccttttttta  
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tatatgctaa aaattttggg gaatatgttt tgggatgtat tatggagcta aaactctaac  
1320  
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1380  
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ataagctatt ttttctaag gataaagtac ctttgagcat gagtgatca cagctttcat  
1560  
taggaaaact tttcattaca tacttgttta aactctgtct tccagggtaa aaataataag  
1620

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 1680  
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 1800  
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 1860  
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 1920  
 tgttaaagga aaaaaaagag gggggaagat cagggtcatac tatctactct cctcatctct  
 1980  
 aacagctcag gatctcttag cattttaatt agatgtaatt gtttgtcttt aactgtcaaa  
 2040  
 aagtttggtt ctgtgtctgt gttttaataa gacgagagga cgagcgattg aggtgtatgg  
 2100  
 agagaaaaca gacctaatgc tccttgttcc tagagtagag tggagggagg gtggcctaag  
 2160  
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 2220  
 cactgaattc cattttttca aggtaatttc ttgtgcctct aatagcccaa gaatgggagg  
 2280  
 ttgactagat ctgacatgat tccttctctgt tctgaactgt ggggtgtgca catctctgct  
 2340  
 tgagtcaggt ttgagtagag gcttagagac agttgggtga gaacaaccaa aatcttatca  
 2400  
 tgggtctcagt cataatcatt agggggaact ctagccaaat ggtttaactt ctgctgttgg  
 2460  
 aactggggat tgggtgggca ggaaaagggtg atatccattc tttctgataa ctagatggtg  
 2520  
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 2570

&lt;210&gt; 3218

&lt;211&gt; 181

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3218

Gly Val Lys Ala Arg Gln Tyr Pro Trp Gly Val Val Gln Val Glu Asn  
 1 5 10 15  
 Glu Asn His Cys Asp Phe Val Lys Leu Arg Glu Met Leu Ile Cys Thr  
 20 25 30  
 Asn Met Glu Asp Leu Arg Glu Gln Thr His Thr Arg His Tyr Glu Leu  
 35 40 45  
 Tyr Arg Arg Cys Lys Leu Glu Glu Met Gly Phe Thr Asp Val Gly Pro  
 50 55 60  
 Glu Asn Lys Pro Val Ser Val Gln Glu Thr Tyr Glu Ala Lys Arg His  
 65 70 75 80  
 Glu Phe His Gly Glu Arg Gln Arg Lys Glu Glu Met Lys Gln Met  
 85 90 95  
 Phe Val Gln Arg Val Lys Glu Lys Glu Ala Ile Leu Lys Glu Ala Glu  
 100 105 110  
 Arg Glu Leu Gln Ala Lys Phe Glu His Leu Lys Arg Leu His Gln Glu

	115		120		125
Glu	Arg	Met	Lys	Leu	Glu
				Gln	Arg
				Arg	Leu
				Leu	Glu
				Glu	Ile
	130		135		140
Ile	Ala	Phe	Ser	Lys	Lys
				Ala	Thr
				Ser	Glu
				Ile	Phe
				His	Ser
				Gln	
	145		150		155
Ser	Phe	Leu	Ala	Thr	Gly
				Ser	Asn
				Leu	Ser
				Lys	Asp
				Lys	Asp
				His	Lys
				165	170
Asn	Ser	Asn	Phe	Leu	
					175
					180

&lt;210&gt; 3219

&lt;211&gt; 1241

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3219

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 120  
 gagcgggaga cagacatcct ggacgatgaa ttgccaaacc aggatgggtca cagtgcgggc  
 180  
 agcatgggca cactctcttc tctggacggg gtcaccaaca tcagtggagg gggctaccca  
 240  
 gaggccctgt ccccatgac caacgggtctg gacaagtctt accccatgga gcctatgggt  
 300  
 aatggaggag gctaccctta cgagtctgcc agccggggcg ggcctgcccc tgctggccac  
 360  
 acggccccca tgcggccctc ctactctgca caggagggtt tagctggcta ccagaggag  
 420  
 gggccccacc cagcctggcc acagccagtg accacctccc actatgcccc tgaccccagc  
 480  
 ggtaggttcc gctctcaatc cttttcgaa gctgaacccc agctgcccc agctccggtc  
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 660  
 cttgtagcca gcaggcccag cctcagcca ttggcagaga ccccatccc cagtctccct  
 720  
 gagttcccg gcagcagctc ccagcaggag attgaacagt ccatcgaaac actcaatatg  
 780  
 ctgatgctgg acctggagcc agcctccgct gctgccccac tacacaagtc ccagagtgtc  
 840  
 cccggggcct ggccaggggc ttctccactc tcctcccagc cctctcttgg atcctcccgt  
 900  
 cagtcccatc cactgaccca gtccagatct ggctatatcc ccagtgggca ttcgttgga  
 960  
 acccctgagc cagccccacg ggctctctg gagtctgtcc ctctggcag gtcttactca  
 1020  
 ccttatgact atcagccatg ttgggtggg cctaaccagg atttccattc aaagagccca  
 1080  
 gcctcttctt ccttgctgct cttccttccg accaccaca gccctccagg gcctcagcaa  
 1140

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 1200  
 tcagaccct cccggactcc agaggaggag ccattgaatt c  
 1241

<210> 3220  
 <211> 413  
 <212> PRT  
 <213> Homo sapiens

<400> 3220  
 Ala Arg His Val Pro His Pro Ala Pro Gln Val Pro Pro Ser Arg Gly  
 1 5 10 15  
 Leu Gly Cys Ala Ser Ser Gly Arg His Val Val Pro Ala Gln Val His  
 20 25 30  
 Val Asn Gly Gly Xaa Val Thr Ser Glu Arg Glu Thr Asp Ile Leu Asp  
 35 40 45  
 Asp Glu Leu Pro Asn Gln Asp Gly His Ser Ala Gly Ser Met Gly Thr  
 50 55 60  
 Leu Ser Ser Leu Asp Gly Val Thr Asn Ile Ser Glu Gly Gly Tyr Pro  
 65 70 75 80  
 Glu Ala Leu Ser Pro Leu Thr Asn Gly Leu Asp Lys Ser Tyr Pro Met  
 85 90 95  
 Glu Pro Met Val Asn Gly Gly Gly Tyr Pro Tyr Glu Ser Ala Ser Arg  
 100 105 110  
 Ala Gly Pro Ala His Ala Gly His Thr Ala Pro Met Arg Pro Ser Tyr  
 115 120 125  
 Ser Ala Gln Glu Gly Leu Ala Gly Tyr Gln Arg Glu Gly Pro His Pro  
 130 135 140  
 Ala Trp Pro Gln Pro Val Thr Thr Ser His Tyr Ala His Asp Pro Ser  
 145 150 155 160  
 Gly Met Phe Arg Ser Gln Ser Phe Ser Glu Ala Glu Pro Gln Leu Pro  
 165 170 175  
 Pro Ala Pro Val Arg Gly Gly Ser Ser Arg Glu Ala Val Gln Arg Gly  
 180 185 190  
 Leu Asn Ser Trp Gln Gln Gln Gln Gln Gln Gln Gln Pro Arg Pro  
 195 200 205  
 Pro Pro Arg Gln Gln Glu Arg Ala His Leu Glu Ser Leu Val Ala Ser  
 210 215 220  
 Arg Pro Ser Pro Gln Pro Leu Ala Glu Thr Pro Ile Pro Ser Leu Pro  
 225 230 235 240  
 Glu Phe Pro Arg Ala Ala Ser Gln Gln Glu Ile Glu Gln Ser Ile Glu  
 245 250 255  
 Thr Leu Asn Met Leu Met Leu Asp Leu Glu Pro Ala Ser Ala Ala Ala  
 260 265 270  
 Pro Leu His Lys Ser Gln Ser Val Pro Gly Ala Trp Pro Gly Ala Ser  
 275 280 285  
 Pro Leu Ser Ser Gln Pro Leu Ser Gly Ser Ser Arg Gln Ser His Pro  
 290 295 300  
 Leu Thr Gln Ser Arg Ser Gly Tyr Ile Pro Ser Gly His Ser Leu Gly  
 305 310 315 320  
 Thr Pro Glu Pro Ala Pro Arg Ala Ser Leu Glu Ser Val Pro Pro Gly  
 325 330 335  
 Arg Ser Tyr Ser Pro Tyr Asp Tyr Gln Pro Cys Leu Ala Gly Pro Asn

	340		345		350										
Gln	Asp	Phe	His	Ser	Lys	Ser	Pro	Ala	Ser	Ser	Ser	Leu	Pro	Ala	Phe
	355						360					365			
Leu	Pro	Thr	Thr	His	Ser	Pro	Pro	Gly	Pro	Gln	Gln	Pro	Pro	Ala	Ser
	370						375					380			
Leu	Pro	Gly	Leu	Thr	Ala	Gln	Pro	Leu	Leu	Ser	Pro	Lys	Glu	Ala	Thr
	385						390				395				400
Ser	Asp	Pro	Ser	Arg	Thr	Pro	Glu	Glu	Glu	Pro	Leu	Asn			
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<210> 3221  
 <211> 1585  
 <212> DNA  
 <213> Homo sapiens

<400> 3221  
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 120  
 gcaggctgga aggagatgcg atgccacctg cgcgccaacg gctacctgtg caagtaccag  
 180  
 tttagggtct tgtgtcctgc gccgcgcccc ggggcccgtt ctaacttgag ctatcgcgcg  
 240  
 cccttcacgc tgcacagcgc cgctctggac ttcagtccac ctgggaccga ggtgagtgcg  
 300  
 ctctgcccgg gacagctccc gatctcagtt acttgcatcg cggacgaaat cggcgctcgc  
 360  
 tgggacaaac tctcggcgga tgtgttgtgt ccttgccccg ggaggtacct cgtgctggc  
 420  
 aaatgcgcag agctccctaa ctgcctagac gacttgggag gctttgctg cgaatgtgct  
 480  
 acgggcttcg agctggggaa ggacggccgc tcttgtgtga ccagtgggga aggacagccg  
 540  
 acccttgggg ggaccggggt gccaccagg cgcccgcggg cactgcaac cagccccgtg  
 600  
 ccgcagagaa catggccaat cagggtcgac gagaagctgg gagagacacc acttgtcctt  
 660  
 gaacaagaca attcagtaac atctattcct gagattcctc gatggggatc acagagcacg  
 720  
 atgtctaccc ttcaaagtgc cttcaagcc gagtcaaagg ccactatcac cccatcaggg  
 780  
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 960  
 aaggagtcct tgggcccgcg gggctgtgat gagtgatect gagcccgtg ctttgggctc  
 1020  
 cagtttcac attgcacaaa caatgggggt aaagtcgggg actgtgatct gcgggacaga  
 1080  
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 1140

ggggacatgg gcactcctgt gaacagtttt tcacttttga tgaacgggg aaccaagagg  
 1200  
 aacttacttg tgtaactgac aatttctgca gaaatcccc ttcctctaaa ttccctttac  
 1260  
 tccactgagg agctaaatca gaactgcaca ctccttcctt gatgatagag gaagtggaag  
 1320  
 tgccctttagg atgggtgatac tggggggaccg ggtagtgtctg gggagagata ttttcttatg  
 1380  
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 1440  
 acaatataat ttacattaaa aaataatttc taccaaaatg gaaaggaaat gttctatgtt  
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 1560  
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 1585

<210> 3222  
 <211> 331  
 <212> PRT  
 <213> Homo sapiens

<400> 3222  
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 Trp Val Glu Glu Pro Gln Arg Ser Cys Thr Ala Arg Arg Trp His Ile  
 20 25 30  
 Gln Ala Thr Gly Gly Val Glu Pro Ala Gly Trp Lys Glu Met Arg Cys  
 35 40 45  
 His Leu Arg Ala Asn Gly Tyr Leu Cys Lys Tyr Gln Phe Glu Val Leu  
 50 55 60  
 Cys Pro Ala Pro Arg Pro Gly Ala Ala Ser Asn Leu Ser Tyr Arg Ala  
 65 70 75 80  
 Pro Phe Gln Leu His Ser Ala Ala Leu Asp Phe Ser Pro Pro Gly Thr  
 85 90 95  
 Glu Val Ser Ala Leu Cys Arg Gly Gln Leu Pro Ile Ser Val Thr Cys  
 100 105 110  
 Ile Ala Asp Glu Ile Gly Ala Arg Trp Asp Lys Leu Ser Gly Asp Val  
 115 120 125  
 Leu Cys Pro Cys Pro Gly Arg Tyr Leu Arg Ala Gly Lys Cys Ala Glu  
 130 135 140  
 Leu Pro Asn Cys Leu Asp Asp Leu Gly Gly Phe Ala Cys Glu Cys Ala  
 145 150 155 160  
 Thr Gly Phe Glu Leu Gly Lys Asp Gly Arg Ser Cys Val Thr Ser Gly  
 165 170 175  
 Glu Gly Gln Pro Thr Leu Gly Gly Thr Gly Val Pro Thr Arg Arg Pro  
 180 185 190  
 Pro Ala Thr Ala Thr Ser Pro Val Pro Gln Arg Thr Trp Pro Ile Arg  
 195 200 205  
 Val Asp Glu Lys Leu Gly Glu Thr Pro Leu Val Pro Glu Gln Asp Asn  
 210 215 220  
 Ser Val Thr Ser Ile Pro Glu Ile Pro Arg Trp Gly Ser Gln Ser Thr  
 225 230 235 240  
 Met Ser Thr Leu Gln Met Ser Leu Gln Ala Glu Ser Lys Ala Thr Ile





<211> 224  
 <212> PRT  
 <213> Homo sapiens

<400> 3224  
 Xaa Arg Val Val His Gly Leu Gln Pro Pro Cys Phe Gln Glu Pro Cys  
 1 5 10 15  
 Ser Asn Pro Asp Ser Leu Ile Phe Gly Ala Leu Thr Ile Met Thr Gly  
 20 25 30  
 Val Ile Gly Val Ile Leu Gly Ala Glu Ala Ser Arg Arg Tyr Lys Lys  
 35 40 45  
 Val Ile Pro Gly Ala Glu Pro Leu Ile Cys Ala Ser Ser Leu Leu Ala  
 50 55 60  
 Thr Ala Pro Cys Leu Tyr Leu Ala Leu Val Leu Ala Pro Thr Thr Leu  
 65 70 75 80  
 Leu Ala Ser Tyr Val Phe Leu Gly Leu Gly Glu Leu Leu Leu Ser Cys  
 85 90 95  
 Asn Trp Ala Val Val Ala Asp Ile Leu Leu Ser Val Val Val Pro Arg  
 100 105 110  
 Cys Arg Gly Thr Ala Glu Ala Leu Gln Ile Thr Val Gly His Ile Leu  
 115 120 125  
 Gly Asp Ala Gly Ser Pro Tyr Leu Thr Gly Leu Ile Ser Ser Val Leu  
 130 135 140  
 Arg Pro Gly Ala Leu Thr Pro Leu Gln Arg Phe Arg Ser Leu Gln Gln  
 145 150 155 160  
 Ser Phe Leu Cys Cys Ala Phe Val Ile Ala Leu Gly Gly Gly Cys Phe  
 165 170 175  
 Leu Leu Thr Ala Leu Tyr Leu Glu Arg Asp Glu Thr Arg Ala Trp Gln  
 180 185 190  
 Pro Val Thr Gly Thr Pro Asp Ser Asn Asp Val Asp Ser Asn Asp Leu  
 195 200 205  
 Glu Arg Gln Gly Leu Leu Ser Gly Ala Gly Ala Ser Thr Glu Glu Pro  
 210 215 220

<210> 3225  
 <211> 506  
 <212> DNA  
 <213> Homo sapiens

<400> 3225  
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 gcagtcgaaa ttctttctga accccatata ggatgaaggt tatatttcca aaattaaaac  
 120  
 agaggaacat tttaaatggc ctacgtccat gcaccttctt tattcaagaa gctaccaaga  
 180  
 attctgcctg tttcccagtc cctaaaatgc ctgtgccatg tgccctgggt gaagaactag  
 240  
 tcccatgccca caggggtaca ggccccgctg tagtttgccc agcccaaccg cagcaagggg  
 300  
 aagtgggaacc acagcctcaa cccacacaga ggatggaacc accttctgca gctaaaaata  
 360  
 accacaccgc ctttgagggtg agccacccaa gatgcagggtg gggctgtatg aaactccacg  
 420

aacatgggat gagtttcatt ttcagggttc cgagggggcca tgagtgggtac caagatccct  
 480  
 ggagggtgccc ttgggtttccc atgtag  
 506

<210> 3226  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 3226  
 Met Lys Val Ile Phe Pro Lys Leu Lys Gln Arg Asn Ile Leu Asn Gly  
 1 5 10 15  
 Leu Arg Pro Cys Thr Phe Phe Ile Gln Glu Ala Thr Lys Asn Ser Ala  
 20 25 30  
 Cys Phe Pro Val Pro Lys Met Pro Val Pro Cys Ala Leu Gly Glu Glu  
 35 40 45  
 Leu Val Pro Cys His Arg Gly Thr Gly Pro Ala Val Val Trp Pro Ala  
 50 55 60  
 Gln Pro Gln Gln Gly Glu Val Glu Pro Gln Pro Gln Pro Thr Gln Arg  
 65 70 75 80  
 Met Glu Pro Pro Ser Ala Ala Lys Asn Asn His Thr Ala Phe Glu Val  
 85 90 95  
 Ser His Pro Arg Cys Arg Trp Gly Cys Met Lys Leu His Glu His Gly  
 100 105 110  
 Met Ser Phe Ile Phe Arg Val Pro Arg Gly His Glu Trp Tyr Gln Asp  
 115 120 125  
 Pro Trp Arg Cys Pro Trp Phe Pro Met  
 130 135

<210> 3227  
 <211> 1623  
 <212> DNA  
 <213> Homo sapiens

<400> 3227  
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 agactgagag aggaagagat agagggaagtg ctgccctagg ctgcatgagt cgaagcaagc  
 120  
 gtgtttcctt cccgccaggc aagtgccctt agaaaccggg ccccgccccc ttcctggcct  
 180  
 gcattcccat cccctctccc ggggcggagg tgaggacctc cttggttcct ttggttctgt  
 240  
 cagttagccc cttccttggc catgaagctc gtgaggaaga acatcgagaa ggacaatgcg  
 300  
 ggccagggtga ccctgttccc cgaggagcct gaggacatgt ggcacactta caacctcgtg  
 360  
 caggtgggcg acagcctgcg cgctccacc atccgcaagg tacagacaga gtcctccacg  
 420  
 ggcagcgtgg gcagcaaccg ggtccgact accctcactc tctgcgtgga ggccatcgac  
 480  
 ttcgactctc aagcctgcc agtgcgggtt aaggggacca acatccaaga gaatgagtat  
 540

gtcaagatgg gggcttacca caccatcgag ctggagccca accgccagtt caccctggcc  
 600  
 aagaagcagt gggatagtggt ggtactggag cgcacgagc aggcctgtga cccagcctgg  
 660  
 agcgtgatg tggcggctgt ggtcatgcag gaaggcctcg cccatatctg cttagtcaact  
 720  
 cccagcatga ccttcactcg ggccaagggt gaggtgaaca tccctaggaa aaggaaaggc  
 780  
 aattgtcttc agcatgaccg ggccttggag cggttctatg aacagggtgt ccaggctatc  
 840  
 cagcgccaca tacactttga tgttgtaaag tgcacccctgg tggccagccc aggatttgtg  
 900  
 agggagcagt tctgcgacta catgtttcaa caagcagtga agaccgacaa caaactgctc  
 960  
 ctggaaaacc ggtccaaatt tcttcaggta catgcctcct cgggacacaa gtactccctg  
 1020  
 aaagaggccc tttgtgaccc tactgtgggt agccgccttt cagacactaa agctgctggg  
 1080  
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 1140  
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 1200  
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 1260  
 gacagtgtga aagagaatgc aggcaccgtt aggatattct ctagtcttca cgtttctggg  
 1320  
 gaacagctca gccagttgac tggggtagct gccattctcc gcttccctgt tcccgaactt  
 1380  
 tctgaccaag aggggtatc cagttctgaa gaggattaat gattgaaact taaaattgag  
 1440  
 acaatcttgt gtttctctaaa ctgttacagt acatttctca gcacccctgt gacagaaagc  
 1500  
 tgcaagaatg gcactttttg attcatacag ggatttctta tgtctttggc tacactagat  
 1560  
 atttttgtat tggcaagaca tgtattttaa caataaacta aaaggaaata aaaaaaaaaa  
 1620  
 aaa  
 1623

&lt;210&gt; 3228

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3228

Met Lys Leu Val Arg Lys Asn Ile Glu Lys Asp Asn Ala Gly Gln Val  
 1 5 10 15  
 Thr Leu Val Pro Glu Glu Pro Glu Asp Met Trp His Thr Tyr Asn Leu  
 20 25 30  
 Val Gln Val Gly Asp Ser Leu Arg Ala Ser Thr Ile Arg Lys Val Gln  
 35 40 45  
 Thr Glu Ser Ser Thr Gly Ser Val Gly Ser Asn Arg Val Arg Thr Thr  
 50 55 60  
 Leu Thr Leu Cys Val Glu Ala Ile Asp Phe Asp Ser Gln Ala Cys Gln

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65          70          75          80
Leu Arg Val Lys Gly Thr Asn Ile Gln Glu Asn Glu Tyr Val Lys Met
      85          90          95
Gly Ala Tyr His Thr Ile Glu Leu Glu Pro Asn Arg Gln Phe Thr Leu
      100        105        110
Ala Lys Lys Gln Trp Asp Ser Val Val Leu Glu Arg Ile Glu Gln Ala
      115        120        125
Cys Asp Pro Ala Trp Ser Ala Asp Val Ala Val Val Met Gln Glu
      130        135        140
Gly Leu Ala His Ile Cys Leu Val Thr Pro Ser Met Thr Leu Thr Arg
      145        150        155        160
Ala Lys Val Glu Val Asn Ile Pro Arg Lys Arg Lys Gly Asn Cys Ser
      165        170        175
Gln His Asp Arg Ala Leu Glu Arg Phe Tyr Glu Gln Val Val Gln Ala
      180        185        190
Ile Gln Arg His Ile His Phe Asp Val Val Lys Cys Ile Leu Val Ala
      195        200        205
Ser Pro Gly Phe Val Arg Glu Gln Phe Cys Asp Tyr Met Phe Gln Gln
      210        215        220
Ala Val Lys Thr Asp Asn Lys Leu Leu Leu Glu Asn Arg Ser Lys Phe
      225        230        235        240
Leu Gln Val His Ala Ser Ser Gly His Lys Tyr Ser Leu Lys Glu Ala
      245        250        255
Leu Cys Asp Pro Thr Val Ala Ser Arg Leu Ser Asp Thr Lys Ala Ala
      260        265        270
Gly Glu Val Lys Ala Leu Asp Asp Phe Tyr Lys Met Leu Gln His Glu
      275        280        285
Pro Asp Arg Ala Phe Tyr Gly Leu Lys Gln Val Glu Lys Ala Asn Glu
      290        295        300
Ala Met Ala Ile Asp Thr Leu Leu Ile Ser Asp Glu Leu Phe Arg His
      305        310        315        320
Gln Asp Val Ala Thr Arg Ser Arg Tyr Val Arg Leu Val Asp Ser Val
      325        330        335
Lys Glu Asn Ala Gly Thr Val Arg Ile Phe Ser Ser Leu His Val Ser
      340        345        350
Gly Glu Gln Leu Ser Gln Leu Thr Gly Val Ala Ala Ile Leu Arg Phe
      355        360        365
Pro Val Pro Glu Leu Ser Asp Gln Glu Gly Asp Ser Ser Ser Glu Glu
      370        375        380
Asp
385

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<210> 3229
<211> 1008
<212> DNA
<213> Homo sapiens

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<400> 3229
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120
ggccgggctaa ggtgcgcgtg ctgcgtggtt ctaacccttc tgttgggcgt ttctgctgag
180

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aggcgggagg cgctgagagt ctgtgcggag gtccgtggac agactgcttt gctcgttgtt  
 240  
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 300  
 cagccgacca ttatggaaga cggcaagcgg gagagggtggc ccaccctcat ggagcgcttg  
 360  
 tgctcggatg gcttcgcatt tccccaatac cccattaaac cgtatcatct gaagaggatc  
 420  
 cacagagctg tcttactgtg taatctggag gaactgaagt accttctgct cacgtattat  
 480  
 gacatcaata agagagacag gaaggaaagg accgccctac atttggcctg tgccactggc  
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 gtgaaaatgg tggaaatctt attaaagaaa aaagcaaagt taaatgccat tgattatctt  
 900  
 ggacagatcag cctcactact tgctgttact cttggagaaa aagatatagt cattcttctt  
 960  
 ctgcagcaca atattgatgt gttttctcga gatgtgtatg gaaagctt  
 1008

&lt;210&gt; 3230

&lt;211&gt; 232

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3230

Met Glu Asp Gly Lys Arg Glu Arg Trp Pro Thr Leu Met Glu Arg Leu  
 1 5 10 15  
 Cys Ser Asp Gly Phe Ala Phe Pro Gln Tyr Pro Ile Lys Pro Tyr His  
 20 25 30  
 Leu Lys Arg Ile His Arg Ala Val Leu Arg Gly Asn Leu Glu Glu Leu  
 35 40 45  
 Lys Tyr Leu Leu Leu Thr Tyr Tyr Asp Ile Asn Lys Arg Asp Arg Lys  
 50 55 60  
 Glu Arg Thr Ala Leu His Leu Ala Cys Ala Thr Gly Gln Pro Glu Met  
 65 70 75 80  
 Val His Leu Leu Val Ser Arg Arg Cys Glu Leu Asn Leu Cys Asp Arg  
 85 90 95  
 Glu Asp Arg Thr Pro Leu Ile Lys Ala Val Gln Leu Arg Gln Glu Ala  
 100 105 110  
 Cys Ala Thr Leu Leu Leu Gln Asn Gly Ala Asp Pro Asn Ile Thr Asp  
 115 120 125  
 Val Phe Gly Arg Thr Ala Leu His Tyr Ala Val Tyr Asn Glu Asp Thr  
 130 135 140  
 Ser Met Ile Glu Lys Leu Leu Ser His Gly Thr Asn Ile Glu Glu Cys

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145          150          155          160
Ser Lys Asn Glu Tyr Gln Pro Leu Leu Leu Ala Val Ser Arg Arg Lys
          165          170          175
Val Lys Met Val Glu Phe Leu Leu Lys Lys Lys Ala Asn Val Asn Ala
          180          185          190
Ile Asp Tyr Leu Gly Arg Ser Ala Leu Ile Leu Ala Val Thr Leu Gly
          195          200          205
Glu Lys Asp Ile Val Ile Leu Leu Leu Gln His Asn Ile Asp Val Phe
          210          215          220
Ser Arg Asp Val Tyr Gly Lys Leu
225          230

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&lt;210&gt; 3231

&lt;211&gt; 1367

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3231

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gccacgtccg cccctctccg ccttctgcat cgcgggttcg gcggcttcca cctagacacc
120
taacagtgcg ggagccggcc gcgtcgtgag ggggtcggca cggggagtcg ggcgggtcttg
180
tgcatcttgg ctacctgtgg gtccaagatg tcggacatcg gagactggtt caggagcate
240
ccggcgatca cgcgctattg gttcgcccgc accgtcgcgc tgcccttggc cggcaaactc
300
ggcctcatca gcccgcccta cctcttcttc tggcccgaag ccttcttcta tcgctttcag
360
atttgagggc caatcactgc caccttttat ttccctgtgg gtccaggaac tggatttctt
420
tatttggtca atttatattt cttatatcag tattctacgc gacttgaaac aggagctttt
480
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540
actggcttag caatggatat gcagttgctg atgattcctc tgatcatgtc agtactttat
600
gtctggggcc agctgaacag agacatgatt gtatcatttt ggtttggaac acgatttaag
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720
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960
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1080

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tcagtagcag acaaaagtttc ttaaatcccg aagaaaaata taagtgttcc acaagtttca  
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 1260  
 gcgggtccta gtctgctggc attgagctgg ggctgggtca ccaaaccctt cccaaaagga  
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 1367

<210> 3232

<211> 251

<212> PRT

<213> Homo sapiens

<400> 3232

Met	Ser	Asp	Ile	Gly	Asp	Trp	Phe	Arg	Ser	Ile	Pro	Ala	Ile	Thr	Arg
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Tyr	Trp	Phe	Ala	Ala	Thr	Val	Ala	Val	Pro	Leu	Val	Gly	Lys	Leu	Gly
	20						25					30			
Leu	Ile	Ser	Pro	Ala	Tyr	Leu	Phe	Leu	Trp	Pro	Glu	Ala	Phe	Leu	Tyr
	35					40					45				
Arg	Phe	Gln	Ile	Trp	Arg	Pro	Ile	Thr	Ala	Thr	Phe	Tyr	Phe	Pro	Val
	50				55				60						
Gly	Pro	Gly	Thr	Gly	Phe	Leu	Tyr	Leu	Val	Asn	Leu	Tyr	Phe	Leu	Tyr
65				70					75				80		
Gln	Tyr	Ser	Thr	Arg	Leu	Glu	Thr	Gly	Ala	Phe	Asp	Gly	Arg	Pro	Ala
	85							90				95			
Asp	Tyr	Leu	Phe	Met	Leu	Leu	Phe	Asn	Trp	Ile	Cys	Ile	Val	Ile	Thr
	100							105				110			
Gly	Leu	Ala	Met	Asp	Met	Gln	Leu	Leu	Met	Ile	Pro	Leu	Ile	Met	Ser
	115					120						125			
Val	Leu	Tyr	Val	Trp	Ala	Gln	Leu	Asn	Arg	Asp	Met	Ile	Val	Ser	Phe
	130				135					140					
Trp	Phe	Gly	Thr	Arg	Phe	Lys	Ala	Cys	Tyr	Leu	Pro	Trp	Val	Ile	Leu
145				150					155					160	
Gly	Phe	Asn	Tyr	Ile	Ile	Gly	Gly	Ser	Val	Ile	Asn	Glu	Leu	Ile	Gly
	165							170					175		
Asn	Leu	Val	Gly	His	Leu	Tyr	Phe	Phe	Leu	Met	Phe	Arg	Tyr	Pro	Met
	180						185					190			
Asp	Leu	Gly	Gly	Arg	Asn	Phe	Leu	Ser	Thr	Pro	Gln	Phe	Leu	Tyr	Arg
	195				200							205			
Trp	Leu	Pro	Ser	Arg	Arg	Gly	Gly	Val	Ser	Gly	Phe	Gly	Val	Pro	Pro
	210				215						220				
Ala	Ser	Met	Arg	Arg	Ala	Ala	Asp	Gln	Asn	Gly	Gly	Gly	Gly	Arg	His
225				230					235					240	
Asn	Trp	Gly	Gln	Gly	Phe	Arg	Leu	Gly	Asp	Gln					
			245						250						

<210> 3233

<211> 975

<212> DNA

<213> Homo sapiens



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 120  
 atgacaattt tcacatctcc cgcttcccc tccaaagagt tctacttgte caattctgaa  
 180  
 aaggaacgtt atgaaaaaga attcagccaa gaaagacaac aagaaatttt gagaagagca  
 240  
 gcaagagctt tacctatcta taccacatca gcttcaaaaa ctatcagata ttgtgaaaaa  
 300  
 tgtcagctga ttaaacctga tcgggcgcat cactgctcag cctgtgactc atgtattctt  
 360  
 aagatggatc atccctgtcc ttgggtgaat aactgtgtgg gattttctaa ttacaaattc  
 420  
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 480  
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 660  
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 720  
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 780  
 aaggatcagc acggtctggg gccaggtggg ggtggaacac gcacgggtcca caagcaattc  
 840  
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<210> 3234

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3234  
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 20 25 30  
 Val Met Phe Val Trp Ser Tyr Trp Met Thr Ile Phe Thr Ser Pro Ala  
 35 40 45  
 Ser Pro Ser Lys Glu Phe Tyr Leu Ser Asn Ser Glu Lys Glu Arg Tyr  
 50 55 60  
 Glu Lys Glu Phe Ser Gln Glu Arg Gln Gln Glu Ile Leu Arg Arg Ala  
 65 70 75 80  
 Ala Arg Ala Leu Pro Ile Tyr Thr Thr Ser Ala Ser Lys Thr Ile Arg

	85		90		95										
Tyr	Cys	Glu	Lys	Cys	Gln	Leu	Ile	Lys	Pro	Asp	Arg	Ala	His	His	Cys
	100							105					110		
Ser	Ala	Cys	Asp	Ser	Cys	Ile	Leu	Lys	Met	Asp	His	Pro	Cys	Pro	Trp
	115							120					125		
Val	Asn	Asn	Cys	Val	Gly	Phe	Ser	Asn	Tyr	Lys	Phe	Phe	Leu	Leu	Phe
	130							135					140		
Leu	Leu	Tyr	Ser	Leu	Leu	Tyr	Cys	Leu	Phe	Val	Ala	Ala	Gln	Phe	
	145					150							155		

<210> 3235  
 <211> 551  
 <212> DNA  
 <213> Homo sapiens

<400> 3235  
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 180  
 atccatgaga aacaagatag tctgataggc ctctgacaac aactagagga agttaaagca  
 240  
 attaacatag agatgtatca aaagttgcag ggttctgaag atggcttgaa agaaaaaat  
 300  
 gaaataattg cccgactaga agaaaaaac aataaaatta ctgcagccat gaggcagctg  
 360  
 gaacaaagat tgcagcaagc agagaaggcg caaatggaag ctgaagatga ggatgagaaa  
 420  
 tatctacaag aatgtctcag taaatctgat agtctgcaga aacaaatctc ccaaaggag  
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 540  
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 551

<210> 3236  
 <211> 183  
 <212> PRT  
 <213> Homo sapiens

Xaa	Glu	Thr	Glu	Leu	Gln	Thr	Tyr	Lys	His	Ser	Arg	Gln	Gly	Leu	Asp
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Glu	Met	Tyr	Asn	Glu	Ala	Arg	Arg	Gln	Leu	Arg	Asp	Glu	Ser	Gln	Leu
			20					25				30			
Arg	Gln	Asp	Val	Glu	Asn	Glu	Leu	Ala	Val	Gln	Val	Ser	Met	Lys	His
			35				40					45			
Glu	Ile	Glu	Leu	Ala	Met	Lys	Leu	Leu	Glu	Lys	Asp	Ile	His	Glu	Lys
			50				55				60				
Gln	Asp	Thr	Leu	Ile	Gly	Leu	Arg	Gln	Gln	Leu	Glu	Glu	Val	Lys	Ala
			65			70				75				80	
Ile	Asn	Ile	Glu	Met	Tyr	Gln	Lys	Leu	Gln	Gly	Ser	Glu	Asp	Gly	Leu

	85		90		95										
Lys	Glu	Lys	Asn	Glu	Ile	Ile	Ala	Arg	Leu	Glu	Glu	Lys	Thr	Asn	Lys
			100					105					110		
Ile	Thr	Ala	Ala	Met	Arg	Gln	Leu	Glu	Gln	Arg	Leu	Gln	Gln	Ala	Glu
		115					120					125			
Lys	Ala	Gln	Met	Glu	Ala	Glu	Asp	Glu	Asp	Glu	Lys	Tyr	Leu	Gln	Glu
		130				135					140				
Cys	Leu	Ser	Lys	Ser	Asp	Ser	Leu	Gln	Lys	Gln	Ile	Ser	Gln	Lys	Glu
	145			150					155					160	
Lys	Gln	Leu	Val	Gln	Leu	Glu	Thr	Asp	Leu	Lys	Ile	Glu	Lys	Glu	Trp
		165					170					175			
Arg	Gln	Thr	Leu	Gln	Glu	Asp									
		180													

&lt;210&gt; 3237

&lt;211&gt; 1323

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3237

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240
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480
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900
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1020

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 1320  
 acg  
 1323

<210> 3238

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3238

Xaa Leu Gly Cys Asp Leu Pro Arg Arg Gly Val Cys Thr Lys Ala Leu  
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 20 25 30  
 Gly Arg Asp Arg Val Gly Arg Glu Asp Glu Asp Arg Trp Glu Val Arg  
 35 40 45  
 Gly Asp Arg Lys Ala Arg Lys Pro Leu Val Glu Lys Lys Arg Arg Ala  
 50 55 60  
 Arg Ile Asn Glu Ser Leu Gln Glu Leu Arg Leu Leu Leu Ala Gly Ala  
 65 70 75 80  
 Glu Val Gln Ala Lys Leu Glu Asn Ala Glu Val Leu Glu Leu Thr Val  
 85 90 95  
 Arg Arg Val Gln Gly Val Leu Arg Gly Arg Ala Arg Glu Arg Glu Gln  
 100 105 110  
 Leu Gln Ala Glu Ala Ser Glu Arg Phe Ala Ala Gly Tyr Ile Gln Cys  
 115 120 125  
 Met His Glu Val His Thr Phe Val Ser Thr Cys Gln Ala Ile Asp Ala  
 130 135 140  
 Thr Val Ala Ala Glu Leu Leu Asn His Leu Leu Glu Ser Met Pro Leu  
 145 150 155 160  
 Arg Glu Gly Ser Ser Phe Gln Asp Leu Leu Gly Asp Ala Leu Ala Gly  
 165 170 175  
 Pro Pro Arg Ala Pro Gly Arg Ser Gly Trp Pro Ala Gly Gly Ala Pro  
 180 185 190  
 Gly Ser Pro Ile Pro Ser Pro Pro Gly Pro Gly Asp Asp Leu Cys Ser  
 195 200 205  
 Asp Leu Glu Glu Ala Pro Glu Ala Glu Leu Ser Gln Ala Pro Ala Glu  
 210 215 220  
 Gly Pro Asp Leu Val Pro Ala Ala Leu Gly Ser Leu Thr Thr Ala Gln  
 225 230 235 240  
 Ile Ala Arg Ser Val Trp Arg Pro Trp  
 245

<210> 3239

<211> 432

<212> DNA  
 <213> Homo sapiens

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 120  
 ggtttggtcc tccttttctt cgttctgcgg gtccgaagca atgtgctaaa ggggtctatc  
 180  
 caggaccgcg taggtctcct ttaccagttt gtgggcgcca ccccgtagac aggcattgctg  
 240  
 aacgctgtga atctgtttcc cgtgctgcga gctgtcagcg accaggagag tcaggacggc  
 300  
 ctctaccaga agtggcagat gatgctggcc tatgcactgc acgtcctccc ctccagcggt  
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 420  
 gcccgattgg gt  
 432

<210> 3240  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<400> 3240  
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 Arg Arg Val Thr Arg Asn Leu Val Arg Asn Lys Leu Ala Val Ile Thr  
 20 25 30  
 Arg Leu Leu Gln Asn Leu Ile Met Gly Leu Phe Leu Leu Phe Phe Val  
 35 40 45  
 Leu Arg Val Arg Ser Asn Val Leu Lys Gly Ala Ile Gln Asp Arg Val  
 50 55 60  
 Gly Leu Leu Tyr Gln Phe Val Gly Ala Thr Pro Tyr Thr Gly Met Leu  
 65 70 75 80  
 Asn Ala Val Asn Leu Phe Pro Val Leu Arg Ala Val Ser Asp Gln Glu  
 85 90 95  
 Ser Gln Asp Gly Leu Tyr Gln Lys Trp Gln Met Met Leu Ala Tyr Ala  
 100 105 110  
 Leu His Val Leu Pro Phe Ser Val Val Ala Thr Met Ile Phe Ser Ser  
 115 120 125  
 Val Cys Tyr Trp Thr Leu Gly Leu His Pro Glu Val Ala Arg Leu Gly  
 130 135 140

<210> 3241  
 <211> 492  
 <212> DNA  
 <213> Homo sapiens

<400> 3241  
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acgaaataca aaataagagg caggaagagc ccaaagcatc agaaatgtgc cagttataat  
 120  
 gggccaaaat cccctcttgt gtctccagaa gtatttgaaa aatacgttag gatctgcctc  
 180  
 acagacatgc tcccaggaca ctcgacagca aggaggtacg gcgggcccag ccagccaagg  
 240  
 cagaggagga catcactgcc acagcagggg gcctgactgg cagcaaaagg gacgactccg  
 300  
 gcgaaaagtc agcaggaaac aggacagggg ctggaccaat ggctccctc agccccacac  
 360  
 cccacccagg caggagcggg gcctggcccc gggcaggcgg gtgggagagc tcaactgagt  
 420  
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 480  
 tgggaaccca gg  
 492

<210> 3242  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 3242  
 Met Gly Gln Asn Pro Leu Leu Cys Leu Gln Lys Tyr Leu Lys Asn Thr  
 1 5 10 15  
 Leu Gly Ser Ala Ser Gln Thr Cys Ser Gln Asp Thr Arg Gln Gln Gly  
 20 25 30  
 Gly Thr Ala Gly Pro Ala Ser Gln Gly Arg Gly Gly His His Cys His  
 35 40 45  
 Ser Arg Gly Pro Asp Trp Gln Gln Lys Gly Arg Leu Arg Arg Lys Val  
 50 55 60  
 Ser Arg Lys Gln Asp Arg Gly Trp Thr Asn Gly Leu Pro Gln Pro His  
 65 70 75 80  
 Thr Pro Pro Arg Gln Glu Arg Cys Leu Ala Arg Gly Arg Arg Val Gly  
 85 90 95  
 Glu Leu Thr Glu Trp Ala Ala Gly His Gly Pro  
 100 105

<210> 3243  
 <211> 944  
 <212> DNA  
 <213> Homo sapiens

<400> 3243  
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 120  
 ttgaggcaa aggtaaccca gaatctccca atgaaagaag gctgcacaga ggtctctctc  
 180  
 cttcgagttg ggtggtctgt tgatttttcc cgtccacagc ttggtgaaga tgaattctct  
 240  
 tacggtttgc atggacgagg actcaaggca gaaaatggac aatttgagga atttgccag  
 300

acttttgggg agaattgatgt tattggctgc ttgctaatt ttgagactga agaagtagaa  
 360  
 ctttccttct ccaagaatgg agaagaccta ggtgtggcat tctggatcag caaggattcc  
 420  
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 480  
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 540  
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 944

<210> 3244

<211> 314

<212> PRT

<213> Homo sapiens

<400> 3244

Asp Leu His Phe Gln Val Ser Lys Asp Arg Tyr Gly Gly Gln Pro Leu  
 1 5 10 15  
 Phe Ser Glu Lys Phe Pro Thr Leu Trp Ser Gly Ala Arg Ser Thr Tyr  
 20 25 30  
 Gly Val Thr Lys Gly Lys Val Cys Phe Glu Ala Lys Val Thr Gln Asn  
 35 40 45  
 Leu Pro Met Lys Glu Gly Cys Thr Glu Val Ser Leu Leu Arg Val Gly  
 50 55 60  
 Trp Ser Val Asp Phe Ser Arg Pro Gln Leu Gly Glu Asp Glu Phe Ser  
 65 70 75 80  
 Tyr Gly Phe Asp Gly Arg Gly Leu Lys Ala Glu Asn Gly Gln Phe Glu  
 85 90 95  
 Glu Phe Gly Gln Thr Phe Gly Glu Asn Asp Val Ile Gly Cys Phe Ala  
 100 105 110  
 Asn Phe Glu Thr Glu Glu Val Glu Leu Ser Phe Ser Lys Asn Gly Glu  
 115 120 125  
 Asp Leu Gly Val Ala Phe Trp Ile Ser Lys Asp Ser Leu Ala Asp Arg  
 130 135 140  
 Ala Leu Leu Pro His Val Leu Cys Lys Asn Cys Val Val Glu Leu Asn  
 145 150 155 160  
 Phe Gly Gln Lys Glu Glu Pro Phe Phe Pro Pro Glu Glu Phe Val  
 165 170 175  
 Phe Ile His Ala Val Pro Val Glu Glu Arg Val Arg Thr Ala Val Pro  
 180 185 190  
 Pro Lys Thr Ile Glu Glu Cys Glu Val Ile Leu Met Val Gly Leu Pro

195	200	205
Gly Ser Gly Lys Thr Gln Trp Ala Leu Lys Tyr Ala Lys Glu Asn Pro		
210	215	220
Glu Lys Arg Tyr Asn Val Leu Gly Ala Glu Thr Val Leu Asn Gln Met		
225	230	235
Arg Met Lys Gly Leu Glu Glu Pro Glu Met Asp Pro Lys Ser Arg Asp		240
	245	250
Leu Leu Val Gln Gln Ala Ser Gln Cys Leu Ser Lys Leu Val Gln Ile		255
	260	265
Ala Ser Arg Thr Lys Arg Asn Phe Ile Leu Asp Gln Cys Asn Val Tyr		270
	275	280
Asn Ser Gly Gln Arg Arg Lys Leu Leu Leu Phe Lys Thr Phe Ser Arg		285
	290	295
Lys Val Val Val Val Val Pro Asn Glu Glu		300
305	310	

&lt;210&gt; 3245

&lt;211&gt; 980

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3245

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 120  
 ccaaccacgc agggcctctg agagacaagg tacatcccat gattctagca caggaagaag  
 180  
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 720  
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 840  
 gaggcctcc agcagctgga gctctggaag atcatcgag aaccagtaac atgacccatc  
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 960



ctcaccacaaag caaaaaaaaa  
980

<210> 3246  
<211> 219  
<212> PRT  
<213> Homo sapiens

<400> 3246  
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Asp Leu Phe Arg Gly Cys Thr Ala Leu Glu Leu Gly Ala Gly Thr Gly  
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Leu Ala Ser Ile Ile Ala Ala Thr Met Ala Arg Thr Val Tyr Cys Thr  
35 40 45  
Asp Val Gly Ala Asp Leu Leu Ser Met Cys Gln Arg Asn Ile Ala Leu  
50 55 60  
Asn Ser His Leu Ala Ala Thr Gly Gly Gly Ile Val Arg Val Lys Glu  
65 70 75 80  
Leu Asp Trp Leu Lys Asp Asp Leu Cys Thr Asp Pro Lys Val Pro Phe  
85 90 95  
Ser Trp Ser Gln Glu Glu Ile Ser Asp Leu Tyr Asp His Thr Thr Ile  
100 105 110  
Leu Phe Ala Ala Glu Val Phe Tyr Asp Asp Asp Leu Thr Asp Ala Val  
115 120 125  
Phe Lys Thr Leu Ser Arg Leu Ala His Arg Leu Lys Asn Ala Cys Thr  
130 135 140  
Ala Ile Leu Ser Val Glu Lys Arg Leu Asn Phe Thr Leu Arg His Leu  
145 150 155 160  
Asp Val Thr Cys Glu Ala Tyr Asp His Phe Arg Ser Cys Leu His Ala  
165 170 175  
Leu Glu Gln Leu Thr Asp Gly Lys Leu Arg Phe Val Val Glu Pro Val  
180 185 190  
Glu Ala Ser Phe Pro Gln Leu Leu Val Tyr Glu Arg Leu Gln Gln Leu  
195 200 205  
Glu Leu Trp Lys Ile Ile Ala Glu Pro Val Thr  
210 215

<210> 3247  
<211> 977  
<212> DNA  
<213> Homo sapiens

<400> 3247  
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aggttcaaca gcggcacgta taacaaccag tggatgatcg tggactacaa ggcgttcac  
180  
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240  
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300

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 360  
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 420  
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 480  
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 600  
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 660  
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 720  
 agcggcctgc tgcacatggg ccagccagac ctctggaagt tcgcgcctgt caagggttca  
 780  
 tgggactgaa gttctgtccc tgctctgtg ctttcgcccc tgctgacct cgtcagggtc  
 840  
 acccccgtcc caaggccacc ggacttctaa ctccagcccc tcttgggggc ttctgtctct  
 900  
 gatctggggg ctgagtcate tctctctaga gtgggtcacg aacctgatgg ggctcagaac  
 960  
 tgaccccttc tctcccc  
 977

&lt;210&gt; 3248

&lt;211&gt; 260

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3248

Asn Pro Ala Leu Trp Lys Tyr Val Arg Pro Arg Gly Cys Val Leu Glu  
 1 5 10 15  
 Trp Val Arg Asn Ile Val Ala Asn Arg Leu Ala Ser Asp Gly Ala Thr  
 20 25 30  
 Trp Ala Asp Ile Phe Lys Arg Phe Asn Ser Gly Thr Tyr Asn Asn Gln  
 35 40 45  
 Trp Met Ile Val Asp Tyr Lys Ala Phe Ile Pro Gly Gly Pro Ser Pro  
 50 55 60  
 Gly Ser Arg Val Leu Thr Ile Leu Glu Gln Ile Pro Gly Met Val Val  
 65 70 75 80  
 Val Ala Asp Lys Thr Ser Glu Leu Tyr Gln Lys Thr Tyr Trp Ala Ser  
 85 90 95  
 Tyr Asn Ile Pro Ser Phe Glu Thr Val Phe Asn Ala Ser Gly Leu Gln  
 100 105 110  
 Ala Leu Val Ala Gln Tyr Gly Asp Trp Phe Ser Tyr Asp Gly Ser Pro  
 115 120 125  
 Arg Ala Gln Ile Phe Arg Arg Asn Gln Ser Leu Val Gln Asp Met Asp  
 130 135 140  
 Ser Met Val Arg Leu Met Arg Tyr Asn Asp Phe Leu His Asp Pro Leu  
 145 150 155 160  
 Ser Leu Cys Lys Ala Cys Asn Pro Gln Pro Asn Gly Glu Asn Ala Ile  
 165 170 175  
 Ser Ala Arg Ser Asp Leu Asn Pro Ala Asn Gly Ser Tyr Pro Phe Gln

	180		185		190										
Ala	Leu	Arg	Gln	Arg	Ser	His	Gly	Gly	Ile	Asp	Val	Lys	Val	Thr	Ser
	195						200					205			
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420  
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540  
ttgcggcgtg accctggagt atttgtgctt cctgtagggc tgatagtcga ccatgtggga  
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686

<210> 3254  
<211> 180  
<212> PRT  
<213> Homo sapiens

<400> 3254  
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1 5 10 15  
Tyr Gln Ser Ser His Met Val Asp Tyr Gln Pro Tyr Arg Lys His Lys  
20 25 30  
Tyr Ser Arg Val Thr Pro Gln Glu Gln Ala Lys Leu Asp Ala Gln Leu  
35 40 45  
Arg Asp Lys Glu Phe Tyr Arg Pro Ile Pro Asn Pro Asn Pro Lys Leu  
50 55 60  
Thr Asp Gly Tyr Pro Ala Phe Lys Arg Pro His Met Thr Ala Lys Asp  
65 70 75 80  
Leu Gly Leu Pro Gly Phe Phe Pro Ser Gln Glu His Glu Ala Thr Arg  
85 90 95  
Glu Asp Glu Arg Lys Phe Thr Ser Thr Cys His Phe Thr Tyr Pro Ala  
100 105 110  
Ser His Asp Leu His Leu Ala Gln Gly Asp Pro Asn Gln Val Leu Gln  
115 120 125  
Ser Ala Asp Phe Pro Cys Leu Val Asp Pro Lys His Gln Pro Ala Ala  
130 135 140  
Glu Met Ala Lys Gly Tyr Leu Leu Leu Pro Gly Cys Pro Cys Leu His  
145 150 155 160  
Cys His Ile Val Lys Val Pro Ile Leu Asn Arg Trp Gly Pro Leu Met  
165 170 175  
Pro Phe Tyr Gln  
180

<210> 3255  
<211> 724  
<212> DNA  
<213> Homo sapiens

<400> 3255

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 420  
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 480  
 caaggcactt ttatatatcc agatggatcc agatatgaag gagagtgggc aaatgacctg  
 540  
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 600  
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 720  
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<210> 3256  
 <211> 169  
 <212> PRT  
 <213> Homo sapiens

<400> 3256  
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 20 25 30  
 Gly Arg Asn Glu Ala Gly Glu Arg His Gly Arg Gly Arg Ala Arg Leu  
 35 40 45  
 Pro Asn Gly Asp Thr Tyr Glu Gly Ser Tyr Glu Phe Gly Lys Arg His  
 50 55 60  
 Gly Gln Gly Ile Tyr Lys Phe Lys Asn Gly Ala Arg Tyr Ile Gly Glu  
 65 70 75 80  
 Tyr Val Arg Asn Lys Lys His Gly Gln Gly Thr Phe Ile Tyr Pro Asp  
 85 90 95  
 Gly Ser Arg Tyr Glu Gly Glu Trp Ala Asn Asp Leu Arg His Gly His  
 100 105 110  
 Gly Val Tyr Tyr Tyr Ile Asn Asn Asp Thr Tyr Thr Gly Glu Trp Phe  
 115 120 125  
 Ala His Gln Arg His Gly Gln Gly Thr Tyr Leu Tyr Ala Glu Thr Gly  
 130 135 140  
 Ser Lys Tyr Val Gly Thr Trp Val Asn Gly Gln Gln Glu Gly Thr Ala  
 145 150 155 160  
 Glu Leu Ile His Leu Asn His Arg Tyr

165

<210> 3257  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<400> 3257  
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 180  
 gcttcggagt ctgagtactg gacctaccat gggcccccca aagtgcctcg agccagaagg  
 240  
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 360  
 tggcgcgc  
 368

<210> 3258  
 <211> 122  
 <212> PRT  
 <213> Homo sapiens

<400> 3258  
 Xaa Pro Gly Tyr Ile Asp Ser Pro Thr Tyr Ser Arg Gln Gly Met Ser  
 1 5 10 15  
 Pro Thr Phe Ser Arg Ser Pro His His Tyr Tyr Arg Ser Gly Asp Leu  
 20 25 30  
 Ser Thr Ala Thr Lys Ser Glu Thr Ser Glu Asp Ile Ser Gln Thr Ser  
 35 40 45  
 Lys Tyr Ser Pro Ile Tyr Ser Pro Asp Pro Tyr Tyr Ala Ser Glu Ser  
 50 55 60  
 Glu Tyr Trp Thr Tyr His Gly Ser Pro Lys Val Pro Arg Ala Arg Arg  
 65 70 75 80  
 Phe Ser Ser Gly Gly Glu Glu Asp Asp Phe Asp Arg Ser Met His Lys  
 85 90 95  
 Leu Gln Ser Gly Ile Gly Arg Leu Ile Leu Lys Glu Glu Met Lys Ala  
 100 105 110  
 Arg Ser Ser Ser Tyr Ala Asp Pro Trp Arg  
 115 120

<210> 3259  
 <211> 747  
 <212> DNA  
 <213> Homo sapiens

<400> 3259  
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 60

2458

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 240  
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 300  
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 360  
 cttcctggag cagggcaggc tgcagcaaca cctgcgctgg ctgcagcagt atgtagcaga  
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 660  
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 720  
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 747

&lt;210&gt; 3260

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3260

Met Ser Ser Leu Gly Phe Thr Ser Lys Glu Gln Arg Asn Leu Gly Leu  
 1 5 10 15  
 Leu Val His Leu Met Thr Ser Asn Pro Lys Ile Leu Tyr Ala Pro Ala  
 20 25 30  
 Gly Ser Glu Val Asp Arg Val Ile Leu Lys Ala Asn Glu Thr Phe Ala  
 35 40 45  
 Phe Val Gly Asn Val Thr His Tyr Ala Gln Val Trp Leu Asn Ile Ser  
 50 55 60  
 Ala Glu Ile Arg Ser Phe Leu Glu Gln Gly Arg Leu Gln Gln His Leu  
 65 70 75 80  
 Arg Trp Leu Gln Gln Tyr Val Ala Glu Leu Arg Leu His Pro Glu Ala  
 85 90 95  
 Leu Asn Leu Ser Leu Asp Glu Leu Pro Pro Ala Leu Arg Gln Asp Asn  
 100 105 110  
 Phe Ser Leu Pro Ser Gly Met Ala Leu Leu Gln Gln Leu Asp Thr Ile  
 115 120 125  
 Asp Asn Ala Ala Cys Gly Trp Ile Gln Phe Met Ser Lys Val Ser Val  
 130 135 140  
 Asp Ile Phe Lys Gly Phe Pro Asp Glu Glu Ser Ile Val Asn Tyr Thr  
 145 150 155 160  
 Leu Asn Gln Ala Tyr Gln Asp Asn Val Thr Val Phe Ala Ser Val Ile  
 165 170 175  
 Phe Gln Thr Arg Lys Asp Gly Ser Ser Arg Leu Thr Cys Thr Thr Arg

180 185 190  
Ser Ala Arg Thr Pro  
195

<210> 3261  
<211> 1323  
<212> DNA  
<213> Homo sapiens

<400> 3261  
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tgaatgattc cttgtttccg gtgttctgtc tcccctcgct ggctgtgtgg gggctgcctg  
240  
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300  
gaggtgtggc tcaggaccga cctgaagggt gatgatctgg aggaggggtg cacaagtga  
360  
gagtttgata aattccttga agaaagagcc aaagctgctg aaatggttcc cgacctcccc  
420  
tcgcccccca tggaggctcc tgccccagcc tcaaaccctt ctggccggaa gaagccagag  
480  
cggctcagagg atgccctctt cgccctgtga gcagctctgt ggtttgcctc cccagatggc  
540  
gggtccccgc ttgcaccccg tggacaccgg gcaactggcca ctctacatc cccagctcca  
600  
caccgcctgc acacctgtgt ttccatggaa atgccaccgt gtctgctccc aggcctcccc  
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720  
gactctctcc cctcccacca tgggccccctc tgcccatgtt tctctccagg aagagcgggc  
780  
agagtggccc agccccaggc agtgtcttct gagcagacca cccggactgt ctttctctca  
840  
cccgcccatg gagaagagc acgcccggcc ccgccctgtg ctacaccttg cctggctcag  
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960  
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1080  
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1140  
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1200  
ggccaaggac aattgggagg gcagcaggca gcccgagat ggtggccatg tggcacgctg  
1260  
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1320

aaa  
1323

<210> 3262  
<211> 81  
<212> PRT  
<213> Homo sapiens

<400> 3262  
Ile Pro Val Ala Gln Pro Ser Val Met Asp Asp Ile Glu Val Trp Leu  
1 5 10 15  
Arg Thr Asp Leu Lys Gly Asp Asp Leu Glu Glu Gly Val Thr Ser Glu  
20 25 30  
Glu Phe Asp Lys Phe Leu Glu Glu Arg Ala Lys Ala Ala Glu Met Val  
35 40 45  
Pro Asp Leu Pro Ser Pro Pro Met Glu Ala Pro Ala Pro Ala Ser Asn  
50 55 60  
Pro Ser Gly Arg Lys Lys Pro Glu Arg Ser Glu Asp Ala Leu Phe Ala  
65 70 75 80  
Leu

<210> 3263  
<211> 1128  
<212> DNA  
<213> Homo sapiens

<400> 3263  
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120  
gagctggaga gagaggccaa gaaatcagcg aagaagccgc agtcctcaag cacagagccc  
180  
gccaggaaac ctggccagaa ggagaagaga gtgcggcccc aggagaagca acaagccaag  
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cccgtagaag tggagcggac ccggaagcgg tccgagggct tctcgatgga caggaaggta  
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gagaagaaga aagagccctc cgtggaggag aagctgcaga agctgcacag tgagatcaag  
360  
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420  
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480  
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660  
gaggccccc aggagaaggc ggaggacaag cccagcaccg atctctcagc cccagtgaat  
720  
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780



gactcggagg aggggccaag gtgtggctcc tctgaagacc tgcacgacag cgtacgggag  
 840  
 ggtcccgacc tggacaggcc tgggagcgac cggcaggagc gcgagagggc acggggggac  
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 960  
 ctccaggtgc cctctcctt ccccggtctg caggagagca gagcagagaa ctgtggggaa  
 1020  
 cgctgtgtg tttgtattg ttcccttggg ttttttttc ctgcctaatt tctgtgattt  
 1080  
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<210> 3264

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3264

Ser Arg Tyr Arg Arg Ser Ser Gly Asp Glu Leu Arg Glu Asp Asp Glu  
 1 5 10 15  
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 20 25 30  
 Ser Ser Asp Ser Glu Pro Glu Ala Glu Leu Glu Arg Glu Ala Lys Lys  
 35 40 45  
 Ser Ala Lys Lys Pro Gln Ser Ser Ser Thr Glu Pro Ala Arg Lys Pro  
 50 55 60  
 Gly Gln Lys Glu Lys Arg Val Arg Pro Glu Glu Lys Gln Gln Ala Lys  
 65 70 75 80  
 Pro Val Lys Val Glu Arg Thr Arg Lys Arg Ser Glu Gly Phe Ser Met  
 85 90 95  
 Asp Arg Lys Val Glu Lys Lys Lys Glu Pro Ser Val Glu Glu Lys Leu  
 100 105 110  
 Gln Lys Leu His Ser Glu Ile Lys Phe Ala Leu Lys Val Asp Ser Pro  
 115 120 125  
 Asp Val Lys Gly Cys Leu Asn Ala Leu Glu Glu Leu Gly Thr Leu Gln  
 130 135 140  
 Val Thr Ser Gln Ile Leu Gln Lys Asn Thr Asp Val Val Ala Thr Leu  
 145 150 155 160  
 Lys Lys Ile Arg Arg Tyr Lys Ala Asn Lys Asp Val Met Glu Lys Ala  
 165 170 175  
 Ala Glu Val Tyr Thr Arg Leu Lys Ser Arg Val Leu Gly Pro Lys Ile  
 180 185 190  
 Glu Ala Val Gln Lys Val Asn Lys Ala Gly Met Glu Lys Glu Lys Ala  
 195 200 205  
 Glu Glu Lys Leu Ala Gly Glu Glu Leu Ala Gly Glu Glu Ala Pro Gln  
 210 215 220  
 Glu Lys Ala Glu Asp Lys Pro Ser Thr Asp Leu Ser Ala Pro Val Asn  
 225 230 235 240  
 Gly Glu Ala Thr Ser Gln Lys Gly Glu Ser Ala Glu Asp Lys Glu His  
 245 250 255  
 Glu Glu Gly Arg Asp Ser Glu Glu Gly Pro Arg Cys Gly Ser Ser Glu  
 260 265 270  
 Asp Leu His Asp Ser Val Arg Glu Gly Pro Asp Leu Asp Arg Pro Gly

275                      280                      285  
 Ser Asp Arg Gln Glu Arg Glu Arg Ala Arg Gly Asp Ser Glu Ala Leu  
 290                      295                      300  
 Asp Glu Glu Ser  
 305

<210> 3265  
 <211> 524  
 <212> DNA  
 <213> Homo sapiens

<400> 3265  
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 ctttttcgtg gttttcaaaa tgtttcatt gagggcgtat tacttttata atcaacaaaa  
 120  
 gagaaagtat aacttcattt tagaaattct cacctaaggc atttgaaaaa taatccaaaa  
 180  
 ggtacattat tgttgatttt tcttccttct agaaaggatc ttgttcgagt agaagccaca  
 240  
 gtcattgaaa agacagaatc atggccaaga atcattatga gattcaggaa aaggaaaaac  
 300  
 ttcaagaaga aaagaagtaa gttagagaaa gtaccgctgg gccctgttgc acggtgctgg  
 360  
 ttgccagggc gcatgcgac ggagggtgtg gggcacgtgg gtctcgggac aggaagccca  
 420  
 ggcaggtctc aacctggctg ccactgcccc cttgcccccc tcctcctaga gggagcacc  
 480  
 agagggtcca gcctcgtctc ccttctcttc cacgctccac gcgt  
 524

<210> 3266  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 3266  
 Met Arg Phe Arg Lys Arg Lys Asn Phe Lys Lys Lys Arg Ser Lys Leu  
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 Glu Lys Val Pro Leu Gly Pro Val Ala Arg Cys Trp Leu Pro Arg Arg  
 20                      25                      30  
 Met Arg Thr Glu Gly Val Gly His Val Gly Leu Gly Thr Gly Ser Pro  
 35                      40                      45  
 Gly Arg Ser Gln Pro Gly Cys His Cys Pro Leu Ala Thr Leu Ile Leu  
 50                      55                      60  
 Glu Gly Ala Pro Arg Gly Ser Ser Leu Ala Pro Leu Leu Leu His Ala  
 65                      70                      75                      80  
 Pro Arg

<210> 3267  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 3267  
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 tggaatacat tgaataaaaa ggtcgcacaa agaattgcac agctacagga agctttgttg  
 120  
 cattgtggga agtttcaaga tgccttgagg ccattgctca gctggttggc agataccgag  
 180  
 gagctcatag ccaatcagaa acctccatct gctgagtata aagtgggtgaa agcacagatc  
 240  
 caagaacaga agttgctcca ggggtccta gatgatcgaa aggccacagt agacatgctt  
 300  
 caagcagaag gaggcagaat agcccagtca gcagagctgg ctgatagaga gaaaatcact  
 360  
 ggacagctgg agagtcttga aagtagatgg act  
 393

<210> 3268  
 <211> 131  
 <212> PRT  
 <213> Homo sapiens

<400> 3268  
 Val Glu Tyr Ala Cys Arg Val Gln Gly Leu Glu His Asp Met Glu Glu  
 1 5 10 15  
 Ile Asn Ala Arg Trp Asn Thr Leu Asn Lys Lys Val Ala Gln Arg Ile  
 20 25 30  
 Ala Gln Leu Gln Glu Ala Leu Leu His Cys Gly Lys Phe Gln Asp Ala  
 35 40 45  
 Leu Glu Pro Leu Leu Ser Trp Leu Ala Asp Thr Glu Glu Leu Ile Ala  
 50 55 60  
 Asn Gln Lys Pro Pro Ser Ala Glu Tyr Lys Val Val Lys Ala Gln Ile  
 65 70 75 80  
 Gln Glu Gln Lys Leu Leu Gln Arg Leu Leu Asp Asp Arg Lys Ala Thr  
 85 90 95  
 Val Asp Met Leu Gln Ala Glu Gly Gly Arg Ile Ala Gln Ser Ala Glu  
 100 105 110  
 Leu Ala Asp Arg Glu Lys Ile Thr Gly Gln Leu Glu Ser Leu Glu Ser  
 115 120 125  
 Arg Trp Thr  
 130

<210> 3269  
 <211> 1423  
 <212> DNA  
 <213> Homo sapiens

<400> 3269  
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 120  
 aaatatagga tgtggaagcg aaaaaatc tgggtagcaa gtgaggtgta ctcaaaaata  
 180

agcaaaagtc acgtgggtct gatatttatac cctcgctgga aagcttggtc tcagacacac  
 240  
 tgttactgca agtgtgtgtg agggggaaac tctcacacac ttgcagttg aggacagggc  
 300  
 tagactttga ggtggaccct ggtctcccagg gctgtgtact cccagcccgt gttctctttt  
 360  
 tgctcagact gaacaagtgg aacgaaatta cattaaagaa aagaaggcag cagtgaagaa  
 420  
 atttgaagac aagaaggttg agctgaaaga gaacctgatt gctgagctag aagaaaagaa  
 480  
 gaaaatgatt gaaaacgaaa tgcctgacaat ggaactgaat ggagattcta tggaggtgaa  
 540  
 acctatcatg accagaaagt tgcggaggcg accaaatgat cccgtcccca tcccagacaa  
 600  
 gaggaggaaa cctgctccag cccagctaaa ctatttgta acagatgaac agatcatgga  
 660  
 ggatctgaga acattaaata agcttaagtc acccaagaga ccagcatctc catcctctcc  
 720  
 tgagcacttg cctgcaacac ccgcggaatc tccagcacag agatttgagg cgcggataga  
 780  
 agatggcaaa ctgtattatg acaaaagatg gtaccacaag agccaggcca tctatctgga  
 840  
 gtcaaaggac aaccagaaac tgagctgcgt gatcagttct gtaggagcca atgagatctg  
 900  
 ggtgaggaag acaagtgaca gcaccaagat gaggatctac ctgggtcagc ttcagcgcgg  
 960  
 gctcttcgtg atccgccggc gctcagctgc ttgactttct acagtgtctt tctcttgacc  
 1020  
 ctttttctgg agtgggtttt atttttgttt tgtttcgttt tctctttaat agaaaaatgt  
 1080  
 taacttactg ggaatagcta ctcagccttg gaaatggaga gcactgcagt gaattcttta  
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 gggcactttt gtggccggat gcttccaact ttgtcagctt tttctgcctc aacttcttcc  
 1200  
 agacatcagt caccatgaga ctgtttttact ttcaggcgta ttgggggggtt tgattttactt  
 1260  
 tcctttttatt tctttatttt ttgcttatac ttgtttttga aaacctcttc tgagtttgaa  
 1320  
 gggacagcta tttttattga ttatctttaa gtctctctac catggagaag agcaggaagg  
 1380  
 gatacactct ccagtgcatt ttcattgtttt gaatcggatt agt  
 1423

&lt;210&gt; 3270

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3270

Met Ile Glu Asn Glu Met Leu Thr Met Glu Leu Asn Gly Asp Ser Met  
 1 5 10 15  
 Glu Val Lys Pro Ile Met Thr Arg Lys Leu Arg Arg Arg Pro Asn Asp  
 20 25 30  
 Pro Val Pro Ile Pro Asp Lys Arg Arg Lys Pro Ala Pro Ala Gln Leu

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      35          40          45
Asn Tyr Leu Leu Thr Asp Glu Gln Ile Met Glu Asp Leu Arg Thr Leu
  50          55          60
Asn Lys Leu Lys Ser Pro Lys Arg Pro Ala Ser Pro Ser Ser Pro Glu
  65          70          75          80
His Leu Pro Ala Thr Pro Ala Glu Ser Pro Ala Gln Arg Phe Glu Ala
      85          90          95
Arg Ile Glu Asp Gly Lys Leu Tyr Tyr Asp Lys Arg Trp Tyr His Lys
      100          105          110
Ser Gln Ala Ile Tyr Leu Glu Ser Lys Asp Asn Gln Lys Leu Ser Cys
      115          120          125
Val Ile Ser Ser Val Gly Ala Asn Glu Ile Trp Val Arg Lys Thr Ser
      130          135          140
Asp Ser Thr Lys Met Arg Ile Tyr Leu Gly Gln Leu Gln Arg Gly Leu
      145          150          155          160
Phe Val Ile Arg Arg Arg Ser Ala Ala
      165

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<210> 3271  
 <211> 464  
 <212> DNA  
 <213> Homo sapiens

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<400> 3271
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  60
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  120
ggcagctctgt ggctctggcc cctccagttc cttgtcacca ggagataggc aatgcagctg
  180
atgagaaggg ccccggcagc aagagatcca atgatggtgg ccgccaggat cccagcgctg
  240
gtgggcaggt gtgtactggg cagctcctta ttcttttcag ctacctggac ctcagtcttg
  300
gccttcatag tccattcaga gttgatggtta atggctactt ggtaggtgcc actgtctgta
  360
ggctggggcg ggcgcagcag catggaacca ttggggaagc ccacgatgtc tcgctgtccc
  420
atggcactgc catccctctg aggcgcttgt atccccaggg atgt
  464

```

<210> 3272  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

```

<400> 3272
Met Gly Gln Arg Asp Ile Val Gly Phe Pro Asn Gly Ser Met Leu Leu
  1          5          10          15
Arg Arg Ala Gln Pro Thr Asp Ser Gly Thr Tyr Gln Val Ala Ile Thr
      20          25          30
Ile Asn Ser Glu Trp Thr Met Lys Ala Lys Thr Glu Val Gln Val Ala
      35          40          45
Glu Lys Asn Lys Glu Leu Pro Ser Thr His Leu Pro Thr Asn Ala Gly

```

```

      50              55              60
Ile Leu Ala Ala Thr Ile Ile Gly Ser Leu Ala Ala Gly Ala Leu Leu
65              70              75              80
Ile Ser Cys Ile Ala Tyr Leu Leu Val Thr Arg Asn Trp Arg Gly Gln
      85              90              95
Ser His Arg Leu Pro Ala Pro Arg Gly Gln Gly Ser Leu Ser Ile Leu
      100             105             110
Cys Ser Ala Val Ser Pro Val Pro Ser Val Thr Pro Ser Thr Trp Met
      115             120             125
Ala Thr Thr Glu Lys Pro Glu Leu Gly Pro Ala His
      130             135             140

```

&lt;210&gt; 3273

&lt;211&gt; 387

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3273

```

ngcgcgccag ggatggaaaa ctttattctg tatgaggaga tcggaagagg aagcaagact
60
gctgtctata aagggcgacg gaagggaaca atcaattttg tagccattct ttgtactgat
120
aagtgcagaa ggcctgaaat aaccaactgg gtccgtctca cccgtgaaat aaaacacaag
180
aatattgtaa cttttcatga atggtatgaa acaagcaacc acctctggct agtgggtggaa
240
ctccgcacag gtggttcctt aaaaacagtt attgctcaag atgaaaacct cccagaagat
300
gttgtgagag aatttggaat tgacctgatt agtggattac atcatcttca taaacttggc
360
attctctttg tgacatttct cctagga
387

```

&lt;210&gt; 3274

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3274

```

Xaa Ala Pro Gly Met Glu Asn Phe Ile Leu Tyr Glu Glu Ile Gly Arg
1      5      10      15
Gly Ser Lys Thr Val Val Tyr Lys Gly Arg Arg Lys Gly Thr Ile Asn
20     25     30
Phe Val Ala Ile Leu Cys Thr Asp Lys Cys Arg Arg Pro Glu Ile Thr
35     40     45
Asn Trp Val Arg Leu Thr Arg Glu Ile Lys His Lys Asn Ile Val Thr
50     55     60
Phe His Glu Trp Tyr Glu Thr Ser Asn His Leu Trp Leu Val Val Glu
65     70     75     80
Leu Arg Thr Gly Gly Ser Leu Lys Thr Val Ile Ala Gln Asp Glu Asn
85     90     95
Leu Pro Glu Asp Val Val Arg Glu Phe Gly Ile Asp Leu Ile Ser Gly
100    105    110
Leu His His Leu His Lys Leu Gly Ile Leu Phe Val Thr Phe Leu Leu

```

Gly                    115                    120                    125

<210> 3275  
<211> 1266  
<212> DNA  
<213> Homo sapiens

<400> 3275  
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agaacacatg aaaggaatac atggggaaga aataaagtag aaccaagag ttcttttaag  
120  
ttttctttta tagagacatg aataacagat acactgaagt ataaacaaaa attggcctga  
180  
agcgtccggt ggccggctta gttaggagct atggctaaac atcatcctga ttgatcttt  
240  
tgccgcaagc aggctggtgt tgccatcgga agactgtgtg aaaaatgtga tggcaagtgt  
300  
gtgatttggtg actcctatgt gcgtccctgc actctggtgc gcatatgtga tgagtgtaac  
360  
tatggatctt accaggggcg ctgtgtgatc tgtggaggac ctgggggtctc tgatgcctat  
420  
tattgtaagg agtgcacat ccaggagaag gacagagatg gctgccaaa gattgtcaat  
480  
ctggggagct ctaagacaga cctcttctat gaacgcaaaa aatacggctt caagaagagg  
540  
tgatttggtg gtggccctt cctccccca acatcagtct gctgcagctg ccagaaaaca  
600  
tgcctactac taccagcaga aaggagcag agcccagagc atcaccagga gtgcctgcta  
660  
gtgtactggc agcttgccac cccctcctct cccttcaccc agacacgtgg tagggatgga  
720  
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780  
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840  
caaccaagat cttctaaaaa gaaataatat tttagtcttc tgcttgagga actgactgtg  
900  
aagcgacgcc cagtgaaaaa catgatcttg cagcagctct ggtggcagct gtccttgagg  
960  
aacctttggt gtgtgggtgg aagctatcag aacaagaaat gtaggcattt cccgtttttt  
1020  
ttgggggggg ggtggggggg cagggtcttg ccctcttgaa aggcatttac ttgtttaaca  
1080  
cttgtccagc tacagtgggg tacagtagct ggctattcac aggcattcac atagcccact  
1140  
agtctcatat tattttctt ttgagaaatt ggaaactctt tctgttgcta ttatattaat  
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aaagtgggtg tttattttct ggtaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
1260  
aaaaaa  
1266

<210> 3276  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 3276  
 Met Ala Lys His His Pro Asp Leu Ile Phe Cys Arg Lys Gln Ala Gly  
 1 5 10 15  
 Val Ala Ile Gly Arg Leu Cys Glu Lys Cys Asp Gly Lys Cys Val Ile  
 20 25 30  
 Cys Asp Ser Tyr Val Arg Pro Cys Thr Leu Val Arg Ile Cys Asp Glu  
 35 40 45  
 Cys Asn Tyr Gly Ser Tyr Gln Gly Arg Cys Val Ile Cys Gly Gly Pro  
 50 55 60  
 Gly Val Ser Asp Ala Tyr Tyr Cys Lys Glu Cys Thr Ile Gln Glu Lys  
 65 70 75 80  
 Asp Arg Asp Gly Cys Pro Lys Ile Val Asn Leu Gly Ser Ser Lys Thr  
 85 90 95  
 Asp Leu Phe Tyr Glu Arg Lys Lys Tyr Gly Phe Lys Lys Arg  
 100 105 110

<210> 3277  
 <211> 1435  
 <212> DNA  
 <213> Homo sapiens

<400> 3277  
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 ctgcgtggga ggcagaaaga gctaatacgg ccacgcttgt ccctcggccca ccgtcccacc  
 120  
 cagacttccg tctccttaaa atgttcatgc gtaagtgcgt ggcagaagcg gctcaagcgc  
 180  
 actcgtgcgt cattgctgtc ayyggccgagg gagcgggtgca aggccgccgc gtgacgtcag  
 240  
 gacgccgcgg tcaggacgtc gaagccaaag aagaccagag ccagccgggt ggcacagcgg  
 300  
 tgcctgtggc gtgttgctga tcgcctgggt gggtgttggc gtgtccctgc agcgaaggat  
 360  
 cctggttggc agtgaaaaag cagtctggct ccgaggtcc accccttata cccaagggtc  
 420  
 cagatggcgg ccaacgtggg tgatcaacgt agcacagatt ggtcttctca gtacagcatg  
 480  
 gtggctgggg caggccgaga gaatggcatg gagacgccga tgcacgagaa cccggagtg  
 540  
 gagaaggccc gtcaggccct ggccagcatc agcaagtcag gagctgccgg cggctctgcc  
 600  
 aagtcacgca gcaatgggccc tgtggccagt gcaagtacgt gtcccaggca gaagcctcag  
 660  
 ctttcagca gcagcagtac taccagtggg accagcagta caactatgcc taccctaca  
 720  
 gctactacta tcccatgagc atgtaccaga gctatggctc cccttcccag tatgggatgg  
 780



ccggctccta tggctagcca caccacagca gccatccgca ccccaacacc aagggactct  
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 960  
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 1020  
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 1080  
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 1200  
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 1260  
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 1320  
 gcttcaccgc ctgtgagtcg gaggaggaca aggaccgcac ggaaaagctg ctcaaggagg  
 1380  
 tgctgcaggc gcggtgcag gacggctcgg cctataccat tgactggagc cgga  
 1435

&lt;210&gt; 3278

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3278

Met Ala Ala Asn Val Gly Asp Gln Arg Ser Thr Asp Trp Ser Ser Gln  
 1 5 10 15  
 Tyr Ser Met Val Ala Gly Ala Gly Arg Glu Asn Gly Met Glu Thr Pro  
 20 25 30  
 Met His Glu Asn Pro Glu Trp Glu Lys Ala Arg Gln Ala Leu Ala Ser  
 35 40 45  
 Ile Ser Lys Ser Gly Ala Ala Gly Gly Ser Ala Lys Ser Ser Ser Asn  
 50 55 60  
 Gly Pro Val Ala Ser Ala Ser Thr Cys Pro Arg Gln Lys Pro Gln Leu  
 65 70 75 80  
 Cys Ser Ser Ser Ser Thr Thr Ser Gly Thr Ser Ser Thr Thr Met Pro  
 85 90 95  
 Thr Pro Thr Ala Thr Thr Ile Pro  
 100

&lt;210&gt; 3279

&lt;211&gt; 1130

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3279

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 ccaagcagct ccccatcgct ccggaacagg ctgcagctcc tgccccaag ccggcccca  
 120

cctgagccag aaccaggcac catggtggag aagggatcag atagctcctc agagaagggg  
 180  
 ggggtgcctg ggacccccag caccagagc ctaggcagcc ggaacttcac ccgcaacagc  
 240  
 aagaagatgc agagctggta cagtatgctg agccccactt ataagcagcg taatgaggac  
 300  
 ttccggaaac tggtcagcaa actccccgaa gcagaacgcc tcattgtgga ttactcctgc  
 360  
 gccctgcagc gtgagatcct gctccagggc cgccctctacc tctctgagaa ctggatctgc  
 420  
 ttctacagca acatcttccg ctgggagacc acgatctcca tccagtgaa ggaagtgaca  
 480  
 tgtctgaaga aggaaaagac ggccaagctg atcccccaacg ccatccagat ctgcacggag  
 540  
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 720  
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 1080  
 actggggagg aagcggactt ggctgccctg cttcccagacc tctccggccg  
 1130

<210> 3280

<211> 376

<212> PRT

<213> Homo sapiens

<400> 3280

Xaa	Arg	Ala	His	Arg	Ala	Ala	Ser	Met	Phe	Asp	Thr	Thr	Pro	His	Ser
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Gly	Arg	Ser	Thr	Pro	Ser	Ser	Ser	Pro	Ser	Leu	Arg	Lys	Arg	Leu	Gln
			20					25					30		
Leu	Leu	Pro	Pro	Ser	Arg	Pro	Pro	Pro	Glu	Pro	Glu	Pro	Gly	Thr	Met
		35					40				45				
Val	Glu	Lys	Gly	Ser	Asp	Ser	Ser	Ser	Glu	Lys	Gly	Gly	Val	Pro	Gly
	50					55			60						
Thr	Pro	Ser	Thr	Gln	Ser	Leu	Gly	Ser	Arg	Asn	Phe	Ile	Arg	Asn	Ser
65				70					75					80	
Lys	Lys	Met	Gln	Ser	Trp	Tyr	Ser	Met	Leu	Ser	Pro	Thr	Tyr	Lys	Gln
			85					90						95	
Arg	Asn	Glu	Asp	Phe	Arg	Lys	Leu	Phe	Ser	Lys	Leu	Pro	Glu	Ala	Glu

```

      100      105      110
Arg Leu Ile Val Asp Tyr Ser Cys Ala Leu Gln Arg Glu Ile Leu Leu
      115      120      125
Gln Gly Arg Leu Tyr Leu Ser Glu Asn Trp Ile Cys Phe Tyr Ser Asn
      130      135      140
Ile Phe Arg Trp Glu Thr Thr Ile Ser Ile Gln Leu Lys Glu Val Thr
      145      150      155      160
Cys Leu Lys Lys Glu Lys Thr Ala Lys Leu Ile Pro Asn Ala Ile Gln
      165      170      175
Ile Cys Thr Glu Ser Glu Lys His Phe Phe Thr Ser Phe Gly Ala Arg
      180      185      190
Asp Arg Cys Phe Leu Leu Ile Phe Arg Leu Trp Gln Asn Ala Leu Leu
      195      200      205
Glu Lys Thr Leu Ser Pro Arg Glu Leu Trp His Leu Val His Gln Cys
      210      215      220
Tyr Gly Ser Glu Leu Gly Leu Thr Ser Glu Asp Glu Asp Tyr Val Ser
      225      230      235      240
Pro Leu Gln Leu Asn Gly Leu Gly Thr Pro Lys Glu Val Gly Asp Val
      245      250      255
Ile Ala Leu Ser Asp Ile Thr Ser Ser Gly Ala Ala Asp Arg Ser Gln
      260      265      270
Glu Pro Ser Pro Val Gly Ser Arg Arg Gly His Val Thr Pro Asn Leu
      275      280      285
Ser Arg Ala Ser Ser Asp Ala Asp His Gly Ala Glu Glu Asp Lys Glu
      290      295      300
Glu Gln Val Asp Ser Gln Pro Asp Ala Ser Ser Ser Gln Thr Val Thr
      305      310      315      320
Pro Val Ala Glu Pro Pro Ser Thr Glu Pro Thr Gln Pro Asp Gly Pro
      325      330      335
Thr Thr Leu Gly Pro Leu Asp Leu Leu Pro Ser Glu Glu Leu Leu Thr
      340      345      350
Asp Thr Ser Asn Ser Ser Ser Ser Thr Gly Glu Glu Ala Asp Leu Ala
      355      360      365
Ala Leu Leu Pro Asp Leu Ser Gly
      370      375

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&lt;210&gt; 3281

&lt;211&gt; 842

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3281

```

gaattctgcc ttgccgtgtg cctcattggc caaaggaaag caacagagtc tgcagccagg
60
gcaggacccg caggaggggc ctggaccccg ggggctcctg gcagcgctgt gcctttctga
120
ggcaaggagg tagagccagc ggctgaggac ctgtcagggc cagtcccagc tctgcagctt
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240
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300
ctgggttcaca aagtgtgttg ttccaggaa gaacagatgg gggcgctga gggcaaagg
360

```

cctgagtgtg ggtcgaggat atgccggtg ctcgctcagg ggcggggtt tcatcttgtg  
 420  
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 480  
 ccacatgatg ttcctttcct cttgcaaaag aagttgctgg aaggccact gtccagcagc  
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 840  
 tc  
 842

<210> 3282  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<400> 3282  
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 Pro Asp Thr Ser Leu Gln Val Leu Leu Val Ala Gly Pro Thr Lys Ala  
 20 25 30  
 Pro Trp Pro Arg Gln Pro Gly Gly Cys Trp Thr Val Gly Leu Pro Ala  
 35 40 45  
 Thr Ser Phe Ala Arg Gly Lys Glu His His Val Gly His Ile His Glu  
 50 55 60  
 Gly Thr Gly Asn Ser Val Val Pro Ser Val Thr Pro Cys Gln Asp Thr  
 65 70 75 80  
 Gln Asp Glu Asn Pro Ala Pro Glu Arg Ala Ala Gly Ile Ser Ser Thr  
 85 90 95  
 His Thr Gln Ala Leu Cys Pro Gln Ala Pro Pro Ser Val Leu Pro Gly  
 100 105 110  
 Asn Asn Thr Leu Cys Glu Pro Val Val Glu Pro Gly Thr Ala Trp Ala  
 115 120 125  
 Ser Glu Gln Ser His Glu Ile Arg Val Arg Thr Pro Ser Cys Arg Gly  
 130 135 140  
 Arg Asp  
 145

<210> 3283  
 <211> 3268  
 <212> DNA  
 <213> Homo sapiens

<400> 3283  
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 60

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120  
gcggagaacc taccgccagt cctcatggag cacaaggcca ccaccatcca gaagcacgtg  
180  
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240  
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360  
cggaagatcg atgagcagaa caaagagttc aagacacttt cagagcagtt gtccgtgacc  
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1140  
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1680

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1980  
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2040  
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2100  
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2280  
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2340  
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2400  
ggctaccgga agcgtctctc cagcatggca gatggggata actcatactg cctggaagct  
2460  
atcatccgcc agatgaatgc ctttcataca gtcatgtgtg accagggcct ggaccctgag  
2520  
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2580  
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2700  
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gtttgattcc caatgtgagc aagaagggaag tatatacagt aaagtaaatt caaggatctg  
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3240  
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3268

<210> 3284  
 <211> 1012  
 <212> PRT  
 <213> Homo sapiens

<400> 3284  
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 Ala Arg Gln Ala Tyr Gln Arg Val Arg Arg Ala Ala Val Val Ile Gln  
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 Ala Phe Thr Arg Xaa His Val Cys Ala Glu Asn Leu Pro Pro Val Leu  
 35 40 45  
 Met Glu His Lys Ala Thr Thr Ile Gln Lys His Val Arg Gly Trp Met  
 50 55 60  
 Ala Arg Arg His Phe Gln Arg Leu Arg Asp Ala Ala Ile Val Ile Gln  
 65 70 75 80  
 Cys Ala Phe Arg Met Leu Lys Ala Arg Arg Glu Leu Lys Ala Leu Arg  
 85 90 95  
 Ile Glu Ala Arg Ser Ala Glu His Leu Lys Arg Leu Asn Val Gly Met  
 100 105 110  
 Glu Asn Lys Val Val Gln Leu Gln Arg Lys Ile Asp Glu Gln Asn Lys  
 115 120 125  
 Glu Phe Lys Thr Leu Ser Glu Gln Leu Ser Val Thr Thr Ser Thr Tyr  
 130 135 140  
 Thr Met Glu Val Glu Arg Leu Lys Lys Glu Leu Val His Tyr Gln Gln  
 145 150 155 160  
 Ser Pro Gly Glu Asp Thr Ser Leu Arg Leu Gln Glu Glu Val Glu Ser  
 165 170 175  
 Leu Arg Thr Glu Leu Gln Arg Ala His Ser Glu Arg Lys Ile Leu Glu  
 180 185 190  
 Asp Ala His Ser Arg Glu Lys Asp Glu Leu Arg Lys Arg Val Ala Asp  
 195 200 205  
 Leu Glu Gln Glu Asn Ala Leu Leu Lys Asp Glu Lys Glu Gln Leu Asn  
 210 215 220  
 Asn Gln Ile Leu Cys Gln Ser Lys Asp Glu Phe Ala Gln Asn Ser Val  
 225 230 235 240  
 Lys Glu Asn Leu Leu Met Lys Lys Glu Leu Glu Glu Arg Ser Arg  
 245 250 255  
 Tyr Gln Asn Leu Val Lys Glu Tyr Ser Gln Leu Glu Gln Arg Tyr Asp  
 260 265 270  
 Asn Leu Arg Asp Glu Met Thr Ile Ile Lys Gln Thr Pro Gly His Arg  
 275 280 285  
 Arg Asn Pro Ser Asn Gln Ser Ser Leu Glu Ser Asp Ser Asn Tyr Pro  
 290 295 300  
 Ser Ile Ser Thr Ser Glu Ile Gly Asp Thr Glu Asp Ala Leu Gln Gln  
 305 310 315 320  
 Val Glu Glu Ile Gly Leu Glu Lys Ala Ala Met Asp Met Thr Val Phe  
 325 330 335  
 Leu Lys Leu Gln Lys Arg Val Arg Glu Leu Glu Gln Glu Arg Lys Lys  
 340 345 350  
 Leu Gln Val Gln Leu Glu Lys Arg Glu Gln Gln Asp Ser Lys Lys Val  
 355 360 365  
 Gln Ala Glu Pro Pro Gln Thr Asp Ile Asp Leu Asp Pro Asn Ala Asp

```

      370      375      380
Leu Ala Tyr Asn Ser Leu Lys Arg Gln Glu Leu Glu Ser Glu Asn Lys
385      390      395      400
Lys Leu Lys Asn Asp Leu Asn Glu Leu Arg Lys Ala Val Ala Asp Gln
      405      410      415
Ala Thr Gln Asn Asn Ser Ser His Gly Ser Pro Asp Ser Tyr Ser Leu
      420      425      430
Leu Leu Asn Gln Leu Lys Leu Ala His Glu Glu Leu Glu Val Arg Lys
      435      440      445
Glu Glu Val Leu Ile Leu Arg Thr Gln Ile Val Ser Ala Asp Gln Arg
      450      455      460
Arg Leu Ala Gly Arg Asn Ala Glu Pro Asn Ile Asn Ala Arg Ser Ser
      465      470      475      480
Trp Pro Asn Ser Glu Arg His Val Asp Gln Glu Asp Ala Ile Glu Ala
      485      490      495
Tyr His Gly Val Cys Gln Thr Asn Arg Leu Leu Glu Ala Gln Leu Gln
      500      505      510
Ala Gln Ser Leu Glu His Glu Glu Glu Val Glu His Leu Lys Ala Gln
      515      520      525
Leu Glu Ala Leu Lys Glu Glu Met Asp Lys Gln Gln Gln Thr Phe Cys
      530      535      540
Gln Thr Leu Leu Leu Ser Pro Glu Ala Gln Val Glu Phe Gly Val Gln
      545      550      555      560
Gln Glu Ile Ser Arg Leu Thr Asn Glu Asn Leu Asp Leu Lys Glu Leu
      565      570      575
Val Glu Lys Leu Glu Lys Asn Glu Arg Lys Leu Lys Lys Gln Leu Lys
      580      585      590
Ile Tyr Met Lys Lys Ala Gln Asp Leu Glu Ala Ala Gln Ala Leu Ala
      595      600      605
Gln Ser Glu Arg Lys Arg His Glu Leu Asn Arg Gln Val Thr Val Gln
      610      615      620
Arg Lys Glu Lys Asp Phe Gln Gly Met Leu Glu Tyr His Lys Glu Asp
      625      630      635      640
Glu Ala Leu Leu Ile Arg Asn Leu Val Thr Asp Leu Lys Pro Gln Met
      645      650      655
Leu Ser Gly Thr Val Pro Cys Leu Pro Ala Tyr Ile Leu Tyr Met Cys
      660      665      670
Ile Arg His Ala Asp Tyr Thr Asn Asp Asp Leu Lys Val His Ser Leu
      675      680      685
Leu Thr Ser Thr Ile Asn Gly Ile Lys Lys Val Leu Lys Lys His Asn
      690      695      700
Asp Asp Phe Glu Met Thr Ser Phe Trp Leu Ser Asn Thr Cys Arg Leu
      705      710      715      720
Leu His Cys Leu Lys Gln Tyr Ser Gly Asp Glu Gly Phe Met Thr Gln
      725      730      735
Asn Thr Ala Lys Gln Asn Glu His Cys Leu Lys Asn Phe Asp Leu Thr
      740      745      750
Glu Tyr Arg Gln Val Leu Ser Asp Leu Ser Ile Gln Ile Tyr Gln Gln
      755      760      765
Leu Ile Lys Ile Ala Glu Gly Val Leu Gln Pro Met Ile Val Ser Ala
      770      775      780
Met Leu Glu Asn Glu Ser Ile Gln Gly Leu Ser Gly Val Lys Pro Thr
      785      790      795      800
Gly Tyr Arg Lys Arg Ser Ser Ser Met Ala Asp Gly Asp Asn Ser Tyr

```



805 810 815  
 Cys Leu Glu Ala Ile Ile Arg Gln Met Asn Ala Phe His Thr Val Met  
 820 825 830  
 Cys Asp Gln Gly Leu Asp Pro Glu Ile Ile Leu Gln Val Phe Lys Gln  
 835 840 845  
 Leu Phe Tyr Met Ile Asn Ala Val Thr Leu Asn Asn Leu Leu Leu Arg  
 850 855 860  
 Lys Asp Val Cys Ser Trp Ser Thr Gly Met Gln Leu Arg Tyr Asn Ile  
 865 870 875 880  
 Ser Gln Leu Glu Glu Trp Leu Arg Gly Arg Asn Leu His Gln Ser Gly  
 885 890 895  
 Ala Val Gln Thr Met Glu Pro Leu Ile Gln Ala Ala Gln Leu Leu Gln  
 900 905 910  
 Leu Lys Lys Lys Thr Gln Glu Asp Ala Glu Ala Ile Cys Ser Leu Cys  
 915 920 925  
 Thr Ser Leu Ser Thr Gln Gln Ile Val Lys Ile Leu Asn Leu Tyr Thr  
 930 935 940  
 Pro Leu Asn Glu Phe Glu Glu Arg Val Thr Val Ala Phe Ile Arg Thr  
 945 950 955 960  
 Ile Gln Ala Gln Leu Glu Arg Asn Asp Pro Gln Gln Leu Leu Leu  
 965 970 975  
 Asp Ala Lys His Met Phe Pro Val Leu Phe Pro Phe Asn Pro Ser Ser  
 980 985 990  
 Leu Thr Met Asp Ser Ile His Ile Pro Ala Cys Leu Asn Leu Glu Phe  
 995 1000 1005  
 Leu Asn Glu Val  
 1010

&lt;210&gt; 3285

&lt;211&gt; 1518

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3285

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 aacctgatga caccaccact ttattttgag ctaaatcctc atttaagtga gaacaggaca  
 120  
 gggtttcacca ctgcctcctt tggcaacttg agtgggtggtg tccccaccga gtttatggct  
 180  
 gcaaagatag gtcttttctc gtatttatgt ataaacaggt accagttttg attttattta  
 240  
 atcatttcat acattaacat acatgacaca tcaaatgag aatgcacag ttaaccgtt  
 300  
 caacagctgg ccttacttca aaagaacact atattcatat taaacattta cagtctttcc  
 360  
 atctaacttt acacatgtcc taaatcattt tccagcactt ctacataga agtctagttt  
 420  
 tgctctttaa aatcaccatc tgtatcaccc ctagtagacg cgagggtttc cccaattaca  
 480  
 tgctgaagag agccagccac caccacacct aaagacatcc aagcagctcc agagcctgcc  
 540  
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 600

tgaaccagca ctaaaggctg taggatgtga ctacatcaca gttccagaag gaaggggacc  
 660  
 atggccaaga gaagccctaa atgacagaag ctcatataaa ccaagtcccc caaacctcct  
 720  
 gaaacatcgt tagcaaggag ctactgcttt cctttcttaa acatgttttg ggcataacca  
 780  
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 840  
 ctgtgtgaaa cttgagaatg tctgattaaa gatttcaatg tatatctaaa aactaactca  
 900  
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 960  
 ctttacaccc catcatagca cattatttgt gcacaactag tgaggctctgt gcggctcatc  
 1020  
 atccccataa ccaagtccgtt ctgtgttgag tcatatcatt ctgtgtgtgt tttagaagtc  
 1080  
 accataggaa acatgaagtc acatcctggt caaaaaactg tccatttttc aaaaacagag  
 1140  
 aaaaacctga gatacaggcg agcaactagc gacacttaca ggaagggaaa gaacaatgac  
 1200  
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 1320  
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 1500  
 actgatcaaa actcaatt  
 1518

&lt;210&gt; 3286

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3286

Met Lys Ser His Pro Gly Gln Lys Thr Val His Phe Ser Lys Thr Glu  
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 Lys Asn Leu Arg Tyr Glu Ala Ala Thr Ser Asp Thr Tyr Arg Lys Gly  
 20 25 30  
 Lys Asn Asn Asp Asn Thr Arg Pro Ala Pro Pro Lys Ser Cys Cys  
 35 40 45  
 Cys Glu Leu Arg Leu Gln Lys Arg Thr His Thr Val Ala Asp Lys Thr  
 50 55 60  
 Gln Ala Arg Arg Met Phe Glu Ser Gln Ser Ala Leu Ser Leu Val Pro  
 65 70 75 80  
 Val Thr Ser Tyr Val Gln Leu Pro Gly Pro Ile Pro Tyr Ser Asp Cys  
 85 90 95  
 Arg Leu Arg Thr Glu Asp Ala Pro Leu Leu Ser Leu His Phe Asp Leu  
 100 105 110  
 Leu Phe Pro Leu Lys Thr Arg Arg Pro Ala Phe Pro Lys Thr Ala Trp

115 120 125  
 Pro Trp Leu Cys Thr Leu Phe Thr Thr Asp Gln Asn Ser Ile  
 130 135 140  
 <210> 3287  
 <211> 921  
 <212> DNA  
 <213> Homo sapiens  
 <400> 3287  
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 120  
 gcgtaagccc aatccgggaa actcgttgcc cctctcctgg gaaaggaacg tccctcccca  
 180  
 ggggtgagag tgactcgggc accatcaccg tgtgctgtaa agacctgca gtgctgcagc  
 240  
 tggaaataga gggcgcggaa gcgacgctgg gcatcgcccg ctccatcgag gtgtgccgag  
 300  
 ggagctcccg agccctttaa gctctccctg tctcgcgtag aggggaataa aaagggtgctt  
 360  
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 420  
 tacttgagag ggccgaagct gaagctacag gactgagggg ctggaaaggg cgcgggcgag  
 480  
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 540  
 tcagtcacga cctccttccc tttattctac cgtcccaagg gcctgagatt gggcgactcc  
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 660  
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 720  
 ctgggtgccc tagacctggc ctctctctc cctgcgctgc agaccaacgc ggccggaaaa  
 780  
 aggctggagg gggcttgga gccaaagctaa ttcgggcgaa tttctatgat tatgattttt  
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 ttattaaata gttataaaaa aataggggtat acaattttaa ggactcttag tttaaaacaa  
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 921

<210> 3288  
 <211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 3288  
 Met Thr Asp Ser Arg Glu Asp Ser Val Arg Arg Arg Lys Ser Gly Ala  
 1 5 10 15  
 Leu Gly Arg Val Gly Ile Val Ser Pro Ala Pro Phe Pro Ala Pro Gln  
 20 25 30  
 Ser Cys Ser Phe Ser Phe Gly Leu Ser Lys Tyr Pro Gly Pro Pro Cys

```

      35          40          45
Ile Pro Leu Pro Phe Ser Cys Gly Cys Gly Ala Ser Leu Asn Arg Ser
  50          55          60
Thr Phe Leu Phe Pro Ser Thr Arg Asp Arg Glu Ser Leu Lys Gly Ser
  65          70          75          80
Gly Ala Pro Ser Ala His Leu Asp Gly Ala Gly Asp Ala Gln Arg Arg
      85          90          95
Phe Arg Ala Leu Tyr Phe Gln Leu Gln His Ser Gln Val Phe Thr Ala
      100          105          110
Gln Gly Asp Gly Ala Arg Val Thr Arg Asn Pro Gly Glu Gly Arg Ser
      115          120          125
Phe Pro Arg Arg Gly Ala Thr Ser Phe Pro Asp Trp Ala Tyr Ala Gly
      130          135          140
Gly Arg Gln Leu
145

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<210> 3289  
 <211> 554  
 <212> DNA  
 <213> Homo sapiens

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<400> 3289
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  120
cccagctcc tagcccaata tcagggccgg aggcactgga gaacttccgg ctaaggcagg
  180
cctccctcc cattcacaga gccctgccag ggtggctggc aatggtgaag tccagggcag
  240
agatggggac agaggggacg ccttggattc gactctgtgg tgggtggacc acctccctga
  300
gaccaggeat ccacgtcggg cagcacatgc taccagtc acagaagagg aaacagaggc
  360
tccgagagga agggactgtg tccagggcgg gacccaggcc cttctgcact ggggtcaatga
  420
gccaaagcaca tcacccagc ccttggggag caggagccgg gccttgcagg gtgaggagct
  480
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  540
ataagctgca attg
  554

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<210> 3290  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

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<400> 3290
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Pro Cys Lys Ala Arg Leu Leu Leu Pro Lys Gly Trp Gly Asp Val Leu
      20          25          30
Gly Ser Leu Thr Gln Cys Arg Arg Ala Trp Val Pro Pro Trp Thr Gln

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```

      35          40          45
Ser Leu Pro Leu Gly Ala Ser Val Ser Ser Ser Val Asp Trp Val Ala
  50          55          60
Cys Ala Ala Arg Arg Gly Cys Leu Val Ser Gly Arg Trp Ser Thr His
  65          70          75          80
His Arg Val Glu Ser Lys Ala Ser Pro Leu Ser Pro Ser Leu Pro Trp
      85          90          95
Thr Ser Pro Leu Pro Ala Thr Leu Ala Gly Leu Cys Glu Trp Glu Gly
     100          105          110
Arg Pro Ala Leu Ala Gly Ser Ser Pro Val Pro Pro Ala Leu Ile Leu
     115          120          125
Gly

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<210> 3291  
 <211> 1075  
 <212> DNA  
 <213> Homo sapiens

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<400> 3291
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ggctggaggc ccccgcgctt gccttcgect gcgccgtgga gcgcgacgcc cggggcgccg
 120
tgggccccctt ctcccgccac gcctgcggtg aggcctccccg ccccgctctcc taccatagct
 180
gcctctgtcc ctccgcactg gctgttcacc tggctagctg tgcctgttcc tcaaccggga
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agcgagctctn ggcgctcgacc gctgcccga cccagttac cccctccac cccgcccgtcc
 300
cttccttagc ctacatagcc ctggccatg gcccgccctg gtcccacctc tgatgtcccc
 360
ccccccacag gtggacagac gccttcgnnt gggcctgagc acttgccggc ggcacatgtc
 420
cgctcaccgc gtgtccgggg ccctggcgcg ggtcctggaa gtaccctagc gggccacacc
 480
ctgacagccg agctgatggc gcaccccgcc taccctagtg tgcctccacc ggcggctgcg
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gtgaaggccc cgacgcttcc tcttgctctt gggagcggct gcatgagctg cgcgtcctca
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ccgcgccccac gctgcccggc cagcttgccc aggatggcgt gcagctttgc gcctcgcagc
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 720
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 780
aagaaagggg agccaggatt tagtcctggc ccagcccaga gctgggacct ggagcacgat
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 900
tgccatctag agtttgagca gccttccttg ctgcaggcag gcctagcctg tggcagcggg
 960
ctagggcccg cagagcattt ggtgcccctc catgttgcaa tgcaaacacc ttcaccactg
1020

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gggcagtgagg gagagatggc tatattaata aaataacgtg tgtctttcaa aaaaa  
1075

<210> 3292

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3292

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Val Ala Ala Leu Gly Trp Arg Pro Pro Arg Val Pro Ser Pro Ala Pro  
20 25 30  
Trp Ser Ala Thr Pro Gly Pro Pro Trp Ala Pro Ser Pro Ala Thr Pro  
35 40 45  
Ala Val Arg Leu Pro Ala Pro Ser Pro Thr Ile Ala Ala Ser Val Pro  
50 55 60  
Pro His Trp Leu Phe Thr Trp Leu Ala Val Ser Val Ser Gln Pro Gly  
65 70 75 80  
Ser Glu Ser Xaa Arg Arg Pro Leu Pro Pro Gln Leu Pro Pro Pro  
85 90 95  
Thr Pro Pro Ser Leu Pro  
100

<210> 3293

<211> 2362

<212> DNA

<213> Homo sapiens

<400> 3293

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atggcttgcg cgaggccccc cagccagtgt gaaccacat cctgcccc agggccacct  
120  
gcaggacgcc gacacctacc cctcagcaga cgccggagag aaatgagtag caacaaagag  
180  
cagcgggtcag cagtgttcgt gacccctctt gccctcatca ccctctcat cctctacagc  
240  
tccaacagtg ccaatgaggt cttccattac ggctccctgc ggggccgtag ccgcccacct  
300  
gtcaacctca agaagtggag catcactgac ggctatgtcc ccattctcgg caacaagaca  
360  
ctgcccctctc ggtgccacca gtgtgtgatt gtcagcagct ccagccacct gctgggcacc  
420  
aagctgggccc ctgagatcga gcgggctgag tgtacaatcc gcataaatga tgcacccacc  
480  
actggctact cagctgatgt gggcaacaag accacctacc gcgtcgtggc ccattccagt  
540  
gtgttccgcg tgctgaggag gcccaggag tttgtcaacc ggaccctga aaccgtgttc  
600  
atcttctctgg gggccccgag caagatgcag aagccccagg gcagcctcgt gcgtgtgatc  
660  
cagcgagcgg gcctggtgtt cccaacatg gaagcatatg ccgtctctcc cggccgcatg  
720

cggaatttg acgacctctt ccgggggtgag acgggcaagg acaggagaa gtctcattcg  
780  
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1200  
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1740  
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1860  
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1920  
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1980  
aactgttgga ggcgccttg gggctgcccc ttgtctgga gtcactgggg gcttccgagg  
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2160  
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2220  
accagatgga ggaggccagc agctagccat tgcacactgg ggtgatggg gggggcggtg  
2280  
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2340

aaaaaaaaaa aaaaaaaaaa aa  
2362

<210> 3294  
<211> 353  
<212> PRT  
<213> Homo sapiens

<400> 3294  
Xaa Ser Pro Lys Pro Ala Leu Pro Ala Gly Asp Glu Glu Thr Glu Ala  
1 5 10 15  
Gln Arg Gly His Met Ala Cys Ser Arg Pro Pro Ser Gln Cys Glu Pro  
20 25 30  
Thr Ser Leu Pro Pro Gly Pro Pro Ala Gly Arg Arg His Leu Pro Leu  
35 40 45  
Ser Arg Arg Arg Glu Met Ser Ser Asn Lys Glu Gln Arg Ser Ala  
50 55 60  
Val Phe Val Ile Leu Phe Ala Leu Ile Thr Ile Leu Ile Leu Tyr Ser  
65 70 75 80  
Ser Asn Ser Ala Asn Glu Val Phe His Tyr Gly Ser Leu Arg Gly Arg  
85 90 95  
Ser Arg Arg Pro Val Asn Leu Lys Lys Trp Ser Ile Thr Asp Gly Tyr  
100 105 110  
Val Pro Ile Leu Gly Asn Lys Thr Leu Pro Ser Arg Cys His Gln Cys  
115 120 125  
Val Ile Val Ser Ser Ser Ser His Leu Leu Gly Thr Lys Leu Gly Pro  
130 135 140  
Glu Ile Glu Arg Ala Glu Cys Thr Ile Arg Met Asn Asp Ala Pro Thr  
145 150 155 160  
Thr Gly Tyr Ser Ala Asp Val Gly Asn Lys Thr Thr Tyr Arg Val Val  
165 170 175  
Ala His Ser Ser Val Phe Arg Val Leu Arg Arg Pro Gln Glu Phe Val  
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Asn Arg Thr Pro Glu Thr Val Phe Ile Phe Trp Gly Pro Pro Ser Lys  
195 200 205  
Met Gln Lys Pro Gln Gly Ser Leu Val Arg Val Ile Gln Arg Ala Gly  
210 215 220  
Leu Val Phe Pro Asn Met Glu Ala Tyr Ala Val Ser Pro Gly Arg Met  
225 230 235 240  
Arg Gln Phe Asp Asp Leu Phe Arg Gly Glu Thr Gly Lys Asp Arg Glu  
245 250 255  
Lys Ser His Ser Trp Leu Ser Thr Gly Trp Phe Thr Met Val Ile Ala  
260 265 270  
Val Glu Leu Cys Asp His Val His Val Tyr Gly Met Val Pro Pro Asn  
275 280 285  
Tyr Cys Ser Gln Arg Pro Arg Leu Gln Arg Met Pro Tyr His Tyr Tyr  
290 295 300  
Glu Pro Lys Gly Pro Asp Glu Cys Val Thr Tyr Ile Gln Asn Glu His  
305 310 315 320  
Ser Arg Lys Gly Asn His His Arg Phe Ile Thr Glu Lys Arg Val Phe  
325 330 335  
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340 345 350  
Thr

2485



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 <211> 690  
 <212> DNA  
 <213> Homo sapiens

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 540  
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<400> 3296  
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 35 40 45  
 Thr Glu His Ala Asp Pro Leu Pro Phe Pro Ser Val Ser Leu Ser Gly  
 50 55 60  
 Phe Thr Val Gly Thr Leu Ser Glu Thr Ser Thr Gly Gly Pro Ala Thr  
 65 70 75 80  
 Pro Thr Trp Lys Glu Cys Pro Ile Cys Lys Glu Arg Phe Pro Ala Glu  
 85 90 95  
 Ser Asp Lys Asp Ala Leu Glu Asp His Met Asp Gly His Phe Phe Phe  
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<211> 3176  
<212> DNA  
<213> Homo sapiens

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2487

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<213> Homo sapiens

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Xaa Leu Cys Ala Cys Met Cys Leu Asp Val Cys Phe Cys Met Cys Leu  
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Cys Val Cys Leu Tyr Val Cys Ile Cys Val Tyr Val Cys Val Cys His  
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Phe Val Cys Phe Trp Val Cys Leu Ser Ala Cys Leu Cys Ile Pro Val  
85 90 95  
Ser Pro Cys Val Cys Leu Cys Val Cys Ile Cys Xaa Cys Leu Cys Met  
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Cys Val Arg Gly Cys Val Ser Val Cys Val Cys Val Cys Ile Glu Arg  
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Glu Gly Glu Arg Lys Gly Ala Thr Asp Gly Ser Ala Trp Lys Val Tyr  
130 135 140  
Pro His Ser Gln Pro Trp Glu Glu Ser Val Asn Pro Pro Thr Gly Gln  
145 150 155 160  
Asp Gln Leu Trp Trp Cys Leu Ala Asp Ser Gly Asn Val Thr Phe His  
165 170 175  
Leu Arg Met Gly Leu His Phe Leu Gly Lys Glu Cys Arg Ser Trp Ser  
180 185 190  
Leu Lys Glu Cys Phe Phe Phe Pro Phe Val Ile Glu Arg Ala Gln Pro  
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Cys Val His Trp Leu Thr Val Thr Asn Leu Arg Val Gly Asp Ser His  
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<212> DNA  
<213> Homo sapiens

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&lt;210&gt; 3300

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3300

Met Ser Arg Cys Glu Thr Cys Gly Thr Glu Glu Ala Lys Tyr Arg Cys

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Lys Ala Glu Leu Thr Cys Asn Gly Val Arg Asp Lys Thr Ala Tyr Ile			
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Ser Ile Gln Gln Phe Thr Glu Met Asn Leu Leu Ser Asp Tyr Arg Phe			
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Leu Glu Asp Val Ala Arg Thr Ala Asp His Ile Ser Arg Asp Ala Phe			
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Leu Lys Arg Pro Ile Ser Asn Lys Tyr Met Tyr Phe Met Lys Asn Arg			
85	90	95	
Ala Arg Ser Lys Gly Ile Asn Leu Lys Leu Leu Pro Asn Gly Phe Thr			
100	105	110	
Lys Arg Lys Glu Asn Ser Thr Phe Phe Asp Lys Lys Lys Gln Gln Phe			
115	120	125	
Cys Trp His Val Lys Leu Gln Phe Pro Gln Ser Gln Ala Glu Tyr Ile			
130	135	140	
Glu Lys Arg Val Pro Asp Asp Lys Thr Ile Asn Glu Ile Leu Lys Pro			
145	150	155	160
Tyr Ile Asp Pro Glu Lys Ser Asp Pro Val Ile Arg Gln Arg Leu Lys			
165	170	175	
Ala Tyr Ile Arg Ser Gln Thr Gly Val Gln Ile Leu Met Lys Ile Glu			
180	185	190	
Tyr Met Gln Gln Asn Leu Val Arg Tyr Tyr Glu Leu Asp Pro Tyr Lys			
195	200	205	
Ser Leu Leu Asp Asn Leu Arg Asn Lys Val Ile			
210	215		

&lt;210&gt; 3301

&lt;211&gt; 2109

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3301

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&lt;210&gt; 3302

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 <212> PRT  
 <213> Homo sapiens

<400> 3302  
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 Gln Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser  
 35 40 45  
 Arg Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala  
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 Ile Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg  
 65 70 75 80  
 Glu Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val  
 85 90 95  
 Phe Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro  
 100 105 110  
 Met Lys Val Lys Phe Thr His Gly Gly Thr Gly Ser Ser Gln Thr Ala  
 115 120 125  
 Pro Thr Cys Gly Arg Glu Ser Ser Pro Arg Glu Thr Lys Leu Arg Met  
 130 135 140  
 Ala Ser Met Glu Ser Pro Xaa Val Asn Ala Phe Pro Ala Gln Asn Asn  
 145 150 155 160  
 Tyr Gly Leu Tyr Asp Leu Leu Gly Asn Val Trp Glu Trp Thr Ala Ser  
 165 170 175  
 Pro Tyr Gln Ala Ala Glu Gln Asp Met Arg Val Leu Arg Gly His Pro  
 180 185 190  
 Gly Ser Thr Gln Leu Met Ala Leu Pro Ile Thr Gly Pro Gly Ser Pro  
 195 200 205  
 Pro Gly Trp Ala Thr Leu Gln Ile Gln Pro Gln Thr Thr Ser Val Ser  
 210 215 220  
 Ala Val Leu Gln Thr Gln Ala Gly Arg Gln Gly Ser Cys Lys Gln Pro  
 225 230 235 240  
 Gly Gly Asp Lys Glu Lys Ser Leu Leu Gly Ser Leu Ser Phe Pro Gly  
 245 250 255  
 His Val Ala Asn Ser Ala Ile Pro Ser Ser Arg Ala Ser Ala Ser Gly  
 260 265 270  
 Lys Asn Phe Pro Phe Pro Val Ser His Pro Ser Val Ala Gly Ala Ser  
 275 280 285  
 His Gln Gly Arg Arg Gly Leu Ser Leu Leu Cys Phe Gly Glu Gly Ala  
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 Gln Cys Val Leu Thr Met Ala Gly Gly Gln Val Phe Leu Leu Glu Ala  
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<210> 3303  
 <211> 699  
 <212> DNA  
 <213> Homo sapiens

<400> 3303



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&lt;210&gt; 3304

&lt;211&gt; 233

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3304

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 35 40 45  
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 50 55 60  
 His Trp Phe Val Leu Ala Asp Gln Ser Leu Arg Tyr Tyr Arg Asp Ser  
 65 70 75 80  
 Val Ala Glu Glu Ala Ala Asp Leu Asp Gly Glu Ile Asp Leu Ser Ala  
 85 90 95  
 Cys Tyr Asp Val Thr Glu Tyr Pro Val Gln Arg Asn Tyr Gly Phe Gln  
 100 105 110  
 Ile His Thr Lys Glu Gly Glu Phe Thr Leu Ser Ala Met Thr Ser Gly  
 115 120 125  
 Ile Arg Arg Asn Trp Ile Gln Thr Ile Met Lys His Val His Pro Thr  
 130 135 140  
 Thr Ala Pro Asp Val Thr Ser Ser Leu Pro Glu Lys Asn Lys Ser  
 145 150 155 160  
 Ser Cys Ser Phe Glu Thr Cys Pro Arg Ser Thr Glu Lys Gln Glu Ala  
 165 170 175  
 Glu Leu Gly Glu Pro Asp Pro Glu Gln Lys Arg Ser Arg Ala Arg Glu

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 Arg Arg Arg Glu Gly Arg Ser Lys Thr Phe Asp Trp Ala Glu Phe Arg  
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<210> 3305

<211> 2717

<212> DNA

<213> Homo sapiens

<400> 3305

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&lt;210&gt; 3306

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 <212> PRT  
 <213> Homo sapiens

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 Ile Ser Leu Val Met Lys Thr Pro Arg Val Ala Lys Asn Glu Ala Leu  
 35 40 45  
 Trp His Pro Thr Leu Asn Leu Pro Leu Ser Pro Gln Gly Thr Val Arg  
 50 55 60  
 Thr Ala Val Glu Phe Gln Val Met Thr Gln Thr Gln Ser Leu Ser Phe  
 65 70 75 80  
 Leu Leu Gly Ser Ser Ala Ser Leu Asp Cys Gly Phe Ser Met Ala Pro  
 85 90 95  
 Gly Leu Asp Leu Ile Ser Val Glu Trp Arg Leu Gln His Lys Gly Arg  
 100 105 110  
 Gly Gln Leu Val Tyr Ser Trp Thr Ala Gly Gln Gly Gln Ala Val Arg  
 115 120 125  
 Lys Gly Ala Thr Leu Xaa Ala Cys Thr Thr Gly His Gly Xaa Arg Asp  
 130 135 140  
 Ala Ser Leu Thr Leu Pro Gly Leu Thr Ile Gln Asp Glu Gly Thr Tyr  
 145 150 155 160  
 Ile Cys Gln Ile Thr Thr Ser Leu Tyr Arg Ala Gln Gln Ile Ile Gln  
 165 170 175  
 Leu Asn Ile Gln Ala Ser Pro Lys Val Arg Leu Ser Leu Ala Asn Glu  
 180 185 190  
 Ala Leu Leu Pro Thr Leu Ile Cys Asp Ile Ala Gly Tyr Tyr Pro Leu  
 195 200 205  
 Asp Val Val Val Thr Trp Thr Arg Glu Glu Leu Gly Gly Ser Pro Ala  
 210 215 220  
 Gln Val Ser Gly Ala Ser Phe Ser Ser Leu Arg Gln Ser Val Ala Gly  
 225 230 235 240  
 Thr Tyr Ser Ile Ser Ser Ser Leu Thr Ala Glu Pro Gly Leu Cys Arg  
 245 250 255  
 Cys His Leu His Leu Pro Gly His Thr His Leu Ser Gly Gly Ala Pro  
 260 265 270  
 Trp Gly Gln His Pro Gly Cys Pro Thr Arg Ala Glu Asn Ser Leu Gly  
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 <211> 352  
 <212> DNA  
 <213> Homo sapiens

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<210> 3308

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3308

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 35 40 45  
 Trp Asp Cys Asp Ile Gly Arg Arg Gly Arg Ser Pro Ala Leu Ser Ser  
 50 55 60  
 Ala Gly Trp Ala Gly Ile His Leu Ala Ala Ser Gln Gly Leu Cys Pro  
 65 70 75 80  
 Ala Gly Trp Ser Leu Cys Cys Pro Asn Gln Val Ser Thr Phe Pro Ala  
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<210> 3309

<211> 737

<212> DNA

<213> Homo sapiens

<400> 3309

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<210> 3310

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3310

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Ala	Gln	Leu	Glu	Glu	Gln	Phe	Tyr	Leu	Gln	Ala	Leu	Lys	Leu	Pro	Asn
		35					40					45			
Gln	Thr	His	Pro	Asp	Val	Pro	Val	Gly	Asp	Glu	Ser	Gln	Ala	Arg	Val
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Leu	His	Met	Val	Gly	Asp	Lys	Pro	Val	Phe	Ser	Phe	Gln	Pro	Arg	Gly
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His	Leu	Glu	Ile	Gly	Glu	Lys	Leu	Asp	Ile	Ile	Arg	Gln	Lys	Arg	Leu
			85						90					95	
Ser	His	Val	Ser	Gly	His	Arg	Ser	Tyr	Tyr	Leu	Arg	Gly	Ala	Gly	Ala
		100						105					110		
Leu	Leu	Gln	His	Gly	Leu	Val	Asn	Phe	Thr	Phe	Asn	Lys	Leu	Leu	Arg
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Arg	Gly	Phe	Thr	Pro	Met	Thr	Val	Pro	Asp	Leu	Leu	Arg	Gly	Ala	Val
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			165					170						175	
Glu	Val	Gly	Leu	Ala	Gly	Tyr	Phe	Met	Asp	His	Thr	Val	Ala	Phe	Arg
		180						185					190		
Asp	Leu	Pro	Val	Arg	Met	Val	Cys	Ser	Ser	Thr	Cys	Tyr	Arg	Ala	Glu
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<210> 3311

<211> 486

<212> DNA

<213> Homo sapiens

<400> 3311

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 <211> 102  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Gln Ile Gln Arg Ser Pro Asn Arg Trp Ser Ser Val Phe Trp Lys Val  
 50 55 60  
 Gly Leu Ile Ser Gly Thr Val Phe Val Ile Leu Gly Leu Thr Val Leu  
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 <211> 1791  
 <212> DNA  
 <213> Homo sapiens

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1791

&lt;210&gt; 3314

&lt;211&gt; 537

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 3314

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 20 25 30  
 Ala Arg Thr Ala Val Lys Arg Arg Pro Gly Ala Gly Arg Val Gly Gly  
 35 40 45  
 Gly Gly Gly Arg Xaa Arg Ser Arg Gln Pro Glu Gly Leu Arg Ser His  
 50 55 60  
 His Lys Val Ser Val Ser Pro Val Val His Val Arg Gly Leu Cys Glu  
 65 70 75 80  
 Ser Val Val Glu Ala Asp Leu Val Glu Ala Leu Glu Lys Phe Gly Thr  
 85 90 95  
 Ile Cys Tyr Val Met Met Met Pro Phe Lys Arg Gln Ala Leu Val Glu  
 100 105 110  
 Phe Glu Asn Ile Asp Ser Ala Lys Glu Cys Val Thr Phe Ala Ala Asp  
 115 120 125  
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 130 135 140  
 Ser Lys Arg Ile Thr Arg Pro Gly Asn Thr Asp Asp Pro Ser Gly Gly  
 145 150 155 160  
 Asn Lys Val Leu Leu Leu Ser Ile Gln Asn Pro Leu Tyr Pro Ile Thr  
 165 170 175  
 Val Asp Val Leu Tyr Thr Val Cys Asn Pro Val Gly Lys Val Gln Arg  
 180 185 190  
 Ile Val Ile Phe Lys Arg Asn Gly Ile Gln Ala Met Val Glu Phe Glu  
 195 200 205  
 Ser Val Leu Cys Ala Gln Lys Ala Lys Ala Ala Leu Asn Gly Ala Asp  
 210 215 220  
 Ile Tyr Ala Gly Cys Cys Thr Leu Lys Ile Glu Tyr Ala Arg Pro Thr  
 225 230 235 240  
 Arg Leu Asn Val Ile Arg Asn Asp Asn Asp Ser Trp Asp Tyr Thr Lys  
 245 250 255  
 Pro Tyr Leu Gly Arg Arg Asp Arg Gly Lys Gly Arg Gln Arg Gln Ala  
 260 265 270  
 Ile Leu Gly Glu His Pro Ser Ser Phe Arg His Asp Gly Tyr Gly Ser  
 275 280 285  
 His Gly Pro Leu Leu Pro Leu Pro Ser Arg Tyr Arg Met Gly Ser Arg  
 290 295 300  
 Asp Thr Pro Glu Leu Val Ala Tyr Pro Leu Pro Gln Ala Ser Ser Ser  
 305 310 315 320  
 Tyr Met His Gly Gly Asn Pro Ser Gly Ser Val Val Met Val Ser Gly  
 325 330 335  
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 340 345 350  
 Leu Tyr Gly Asn Ile Glu Lys Val Lys Phe Met Lys Thr Ile Pro Gly  
 355 360 365  
 Thr Ala Leu Val Glu Met Gly Asp Glu Tyr Ala Val Glu Arg Ala Val  
 370 375 380  
 Thr His Leu Asn Asn Val Lys Leu Phe Gly Lys Arg Leu Asn Val Cys  
 385 390 395 400  
 Val Ser Lys Gln His Ser Val Val Pro Ser Gln Ile Phe Glu Leu Glu

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Cys	Val	Leu	His	Tyr	Tyr	Asn	Val	Pro	Leu	Cys	Val	Thr	Glu	Glu	Thr				
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Lys	Val	Phe	Asp	Ala	Lys	Pro	Ser	Ala	Lys	Thr	Leu	Ser	Gly	Leu	Leu				
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Glu	Trp	Glu	Cys	Lys	Thr	Asp	Ala	Val	Glu	Ala	Leu	Thr	Ala	Leu	Asn				
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His	Tyr	Gln	Ile	Arg	Val	Pro	Asn	Gly	Ser	Asn	Pro	Tyr	Thr	Leu	Lys				
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<211> 934
<212> DNA
<213> Homo sapiens
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<210> 3316  
<211> 187  
<212> PRT  
<213> Homo sapiens

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Val Pro Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro Glu Val Val Leu  
35 40 45  
Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu Val Val Lys Lys  
50 55 60  
Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg Leu Phe Ala Val  
65 70 75 80  
Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser Glu Asp Leu Ile  
85 90 95  
Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu Arg Ile Arg Leu  
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Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr Leu Leu Gly Lys  
115 120 125  
Pro Leu Leu Gly Lys Asp Leu Val Arg Val Glu Ala Thr Val Ile Glu  
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Lys Thr Glu Ser Trp Pro Arg Ile Ile Met Arg Phe Arg Lys Arg Lys  
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&lt;210&gt; 3318

&lt;211&gt; 253

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3318

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 Glu Lys Arg Glu Glu Arg Arg Arg Glu Leu Glu Lys Lys Arg Leu

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 50      55      60
Lys Glu Thr Asp Lys Gln Lys Lys Ile Ala Glu Lys Glu Val Arg Ile
 65      70      75      80
Lys Leu Leu Lys Lys Pro Glu Lys Gly Glu Glu Pro Thr Thr Glu Lys
      85      90      95
Pro Lys Glu Arg Gly Glu Glu Ile Asp Thr Gly Gly Gly Lys Gln Glu
 100      105      110
Ser Cys Ala Pro Gly Ala Val Val Lys Ala Arg Pro Met Glu Gly Ser
 115      120      125
Leu Glu Glu Pro Gln Glu Thr Ser His Ser Gly Ser Asp Lys Glu His
 130      135      140
Arg Asp Val Glu Arg Ser Gln Glu Gln Glu Ser Glu Ala Gln Arg Tyr
 145      150      155      160
His Val Asp Asp Gly Arg Arg His Arg Ala His His Glu Pro Glu Arg
 165      170      175
Leu Ser Arg Arg Ser Glu Asp Glu Gln Arg Trp Gly Lys Gly Pro Gly
 180      185      190
Gln Asp Arg Gly Lys Lys Gly Ser Gln Asp Ser Gly Ala Pro Gly Glu
 195      200      205
Ala Met Glu Arg Leu Gly Arg Ala Gln Arg Cys Asp Asp Ser Pro Ala
 210      215      220
Pro Arg Lys Glu Arg Leu Ala Asn Lys Val Phe Ile Lys Pro Lys Lys
 225      230      235      240
Lys Asn Val Ser Gly Cys Leu Lys Val Gln Ala Ala Cys
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&lt;210&gt; 3319

&lt;211&gt; 1541

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3319

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<211> 256

<212> PRT

<213> Homo sapiens

<400> 3320

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Glu	Tyr	Val	Arg	Trp	Met	Met	Tyr	Trp	Ile	Val	Phe	Ala	Leu	Phe	Met
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Ala	Ala	Glu	Ile	Val	Thr	Asp	Ile	Phe	Ile	Ser	Trp	Phe	Pro	Phe	Tyr
		50				55					60				
Tyr	Glu	Ile	Lys	Met	Ala	Phe	Val	Leu	Trp	Leu	Leu	Ser	Pro	Tyr	Thr
		65			70					75				80	
Lys	Gly	Ala	Ser	Leu	Leu	Tyr	Arg	Lys	Phe	Val	His	Pro	Ser	Leu	Ser
			85					90					95		
Arg	His	Glu	Lys	Glu	Ile	Asp	Ala	Tyr	Ile	Val	Gln	Ala	Lys	Glu	Arg
			100					105					110		
Ser	Tyr	Glu	Thr	Val	Leu	Ser	Phe	Gly	Lys	Arg	Gly	Leu	Asn	Ile	Ala

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165	170	175
Ser His Arg Arg Pro Pro Ile Gly Tyr Arg Ala Gly Gly Leu Gln Asp		
180	185	190
Ser Asp Thr Glu Asp Glu Cys Trp Ser Asp Thr Glu Ala Val Pro Arg		
195	200	205
Ala Pro Ala Arg Pro Arg Glu Lys Pro Leu Ile Arg Ser Gln Ser Leu		
210	215	220
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&lt;210&gt; 3321

&lt;211&gt; 1536

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3321

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900

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<211> 454

<212> PRT

<213> Homo sapiens

<400> 3322

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Thr	Pro	Thr	Ser	Val	Ile	Gln	Val	Thr	Asn	Leu	Ser	Ser	Ala	Val	Thr
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Ser	Glu	Gln	Met	Arg	Thr	Leu	Phe	Ser	Phe	Leu	Gly	Glu	Ile	Glu	Glu
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Leu	Arg	Leu	Tyr	Pro	Pro	Asp	Asn	Ala	Pro	Leu	Ala	Phe	Ser	Ser	Lys
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Val	Cys	Tyr	Val	Lys	Phe	Arg	Asp	Pro	Ser	Ser	Val	Gly	Val	Ala	Gln
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His	Leu	Thr	Asn	Thr	Val	Phe	Ile	Asp	Arg	Ala	Leu	Ile	Val	Val	Pro
			100					105					110		
Cys	Ala	Glu	Gly	Lys	Ile	Pro	Glu	Glu	Ser	Lys	Ala	Leu	Ser	Leu	Leu
		115					120					125			
Ala	Pro	Ala	Pro	Thr	Met	Thr	Ser	Leu	Met	Pro	Gly	Ala	Gly	Leu	Leu
		130				135					140				
Pro	Ile	Pro	Thr	Pro	Asn	Pro	Leu	Thr	Thr	Leu	Gly	Val	Ser	Leu	Ser
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Ser	Leu	Gly	Ala	Ile	Pro	Ala	Ala	Ala	Leu	Asp	Pro	Asn	Ile	Ala	Thr
			165						170					175	
Leu	Gly	Glu	Ile	Pro	Gln	Pro	Pro	Leu	Met	Gly	Asn	Val	Asp	Pro	Ser
		180						185					190		
Lys	Ile	Asp	Glu	Ile	Arg	Arg	Thr	Val	Tyr	Val	Gly	Asn	Leu	Asn	Ser



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 Glu Val Met Lys Arg Val Arg Glu Ala Gln Ser Phe Ile Ser Ala Ala  
 260                      265                      270  
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 275                      280                      285  
 Arg Ser His Thr Arg Ser Lys Ser Arg Ser Ser Lys Ser His Ser  
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 405                      410                      415  
 Arg Glu Lys Glu His Glu Lys Asp Arg Asp Lys Glu Lys Glu Lys Glu  
 420                      425                      430  
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&lt;210&gt; 3323

&lt;211&gt; 949

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3323

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 949

&lt;210&gt; 3324

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3324

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 Thr Thr Val Ile Pro Arg Val Tyr Thr Tyr Tyr Val Ser Thr Val Leu  
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 Phe Ala Ile Phe Gly Ile Arg Met Leu Arg Glu Gly Leu Lys Met Ser  
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 Pro Asp Glu Gly Gln Glu Glu Leu Glu Val Gln Ala Glu Leu Lys  
 65 70 75 80  
 Lys Lys Asp Glu Glu Val Ser His Gly Thr Val Asp Leu Asp Gln Lys  
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 Gly Thr Gln Leu Gly Ile Asn Thr Leu Gln Arg Phe Leu Ser Gly Pro  
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&lt;210&gt; 3325

&lt;211&gt; 5055

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3325

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<211> 521

<212> PRT

<213> Homo sapiens

<400> 3328

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&lt;211&gt; 705

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3329

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1980  
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2160  
aaatgttgat ttttctgacc ataagacgta ttttatgtcc ttttgccaag gtggatttgt  
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tagtctcagg cctcctggc cacattgccc aagtcacaca ggcttctgta ttatgtattt  
2280

agataaaatg tgtgaaaaca tatttgaaat aaagttcata aatatgcaaa aaaaaaaaaa  
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2422

<210> 3334  
<211> 672  
<212> PRT  
<213> Homo sapiens

<400> 3334  
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Ile Tyr Glu Ala Gly Ala Gly Asp Arg Met Ala Gly Ala Pro Met Ala  
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Ala Ala Val Gln Pro Ala Glu Val Thr Val Glu Val Gly Glu Asp Leu  
35 40 45  
His Met His His Val Arg Asp Arg Glu Met Pro Glu Ala Leu Glu Phe  
50 55 60  
Asn Leu Ser Ala Asn Pro Glu Ser Ser Thr Ile Phe Gln Arg Asn Ser  
65 70 75 80  
Gln Thr Glu Ala Leu Glu Phe Asn Pro Ser Ala Asn Pro Glu Ala Ser  
85 90 95  
Thr Ile Phe Gln Arg Asn Ser Gln Thr Asp Val Val Glu Ile Arg Arg  
100 105 110  
Ser Asn Cys Thr Asn His Val Ser Ala Val Arg Phe Ser Gln Gln Tyr  
115 120 125  
Ser Leu Cys Ser Thr Ile Phe Leu Asp Asp Ser Thr Ala Ile Gln His  
130 135 140  
Tyr Leu Thr Met Thr Ile Ile Ser Val Thr Leu Glu Ile Pro His His  
145 150 155 160  
Ile Thr Gln Arg Asp Ala Asp Arg Thr Leu Ser Ile Pro Asp Glu Gln  
165 170 175  
Leu His Ser Phe Ala Val Ser Thr Val His Ile Met Lys Lys Arg Asn  
180 185 190  
Gly Gly Gly Ser Leu Asn Asn Tyr Ser Ser Ser Ile Pro Ser Thr Pro  
195 200 205  
Ser Thr Ser Gln Glu Asp Pro Gln Phe Ser Val Pro Pro Thr Ala Asn  
210 215 220  
Thr Pro Thr Pro Val Cys Lys Arg Ser Met Arg Trp Ser Asn Leu Phe  
225 230 235 240  
Thr Ser Glu Lys Gly Ser His Pro Asp Lys Glu Arg Lys Ala Pro Glu  
245 250 255  
Asn His Ala Asp Thr Ile Gly Ser Gly Arg Ala Ile Pro Ile Lys Gln  
260 265 270  
Gly Met Leu Leu Lys Arg Ser Gly Lys Trp Leu Lys Thr Trp Lys Lys  
275 280 285  
Lys Tyr Val Thr Leu Cys Ser Asn Gly Met Leu Thr Tyr Tyr Ser Ser  
290 295 300  
Leu Gly Asp Tyr Met Lys Asn Ile His Lys Lys Glu Ile Asp Leu Gln  
305 310 315 320  
Thr Ser Thr Ile Lys Val Pro Gly Lys Trp Pro Ser Leu Ala Thr Ser

325 330 335  
 Ala Cys Thr Pro Ile Ser Ser Ser Lys Ser Asn Gly Leu Ser Lys Asp  
 340 345 350  
 Met Asp Thr Gly Leu Gly Asp Ser Ile Cys Phe Ser Pro Ser Ile Ser  
 355 360 365  
 Ser Thr Thr Ser Pro Lys Leu Asn Pro Pro Pro Ser Pro His Ala Asn  
 370 375 380  
 Lys Lys Lys His Leu Lys Lys Lys Ser Thr Asn Asn Phe Met Ile Val  
 385 390 395 400  
 Ser Ala Thr Gly Gln Thr Trp His Phe Glu Ala Thr Thr Tyr Glu Glu  
 405 410 415  
 Arg Asp Ala Trp Val Gln Ala Ile Gln Ser Gln Ile Leu Ala Ser Leu  
 420 425 430  
 Gln Ser Cys Glu Ser Ser Lys Ser Lys Ser Gln Leu Thr Ser Gln Ser  
 435 440 445  
 Glu Ala Met Ala Leu Gln Ser Ile Gln Asn Met Arg Gly Asn Ala His  
 450 455 460  
 Cys Val Asp Cys Glu Thr Gln Asn Pro Lys Trp Ala Ser Leu Asn Leu  
 465 470 475 480  
 Gly Val Leu Met Cys Ile Glu Cys Ser Gly Ile His Arg Ser Leu Gly  
 485 490 495  
 Thr Arg Leu Ser Arg Val Arg Ser Leu Glu Leu Asp Asp Trp Pro Val  
 500 505 510  
 Glu Leu Arg Lys Val Met Ser Ser Ile Gly Asn Glu Leu Ala Asn Ser  
 515 520 525  
 Ile Trp Glu Glu Ser Ser Gln Gly Arg Thr Lys Pro Ser Val Asp Ser  
 530 535 540  
 Thr Arg Glu Glu Lys Glu Arg Trp Ile Arg Ser Lys Tyr Glu Glu Lys  
 545 550 555 560  
 Leu Phe Leu Ala Pro Leu Pro Cys Thr Glu Leu Ser Leu Gly Gln Gln  
 565 570 575  
 Leu Leu Arg Ala Thr Ala Asp Glu Asp Leu Gln Thr Ala Ile Leu Leu  
 580 585 590  
 Leu Ala His Gly Ser Arg Glu Glu Val Asn Glu Thr Cys Gly Glu Gly  
 595 600 605  
 Asp Gly Cys Thr Ala Leu His Leu Ala Cys Arg Lys Gly Asn Val Val  
 610 615 620  
 Leu Ala Gln Leu Leu Ile Trp Tyr Gly Val Asp Val Met Ala Arg Asp  
 625 630 635 640  
 Ala His Gly Asn Thr Ala Leu Thr Tyr Ala Arg Gln Ala Ser Ser Gln  
 645 650 655  
 Glu Cys Ile Asn Val Leu Leu Gln Tyr Gly Cys Pro Asp Lys Cys Val  
 660 665 670

<210> 3335  
 <211> 477  
 <212> DNA  
 <213> Homo sapiens

<400> 3335  
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 ggccctcttca ggagtgacgt ccgggacctc etccccaggg cctgtctcat gctgtctcgg  
 120

ccagactgc ttgtgaagg ggttgaggtg ggcctgccg aaacgggcca gcttctcatc  
 180  
 atattccata gcatccacc tgcctgcct gccagggccc aggggctcgc agggacagga  
 240  
 tggccattcc tctagggctg ctggccacgg aagcctggcc gtgggttcgg cacctgctga  
 300  
 ccgcccctc gcatttccc tgagacaggg ctggacagcc aggattaccg ctgtgccgag  
 360  
 tgccgggcgc ccattctctt gcggggtgtg ccagtgagg ccaggcagtg cgactacacc  
 420  
 ggccagtact actgcagccc ctgccactgg aacgccctgg ctgtgatccc tgcacgc  
 477

<210> 3336

<211> 59

<212> PRT

<213> Homo sapiens

<400> 3336

Pro Pro Pro Arg Ile Cys Pro Glu Thr Gly Leu Asp Ser Gln Asp Tyr  
 1 5 10 15  
 Arg Cys Ala Glu Cys Arg Ala Pro Ile Ser Leu Arg Gly Val Pro Ser  
 20 25 30  
 Glu Ala Arg Gln Cys Asp Tyr Thr Gly Gln Tyr Tyr Cys Ser Pro Cys  
 35 40 45  
 His Trp Asn Ala Leu Ala Val Ile Pro Ala Arg  
 50 55

<210> 3337

<211> 679

<212> DNA

<213> Homo sapiens

<400> 3337

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 aaaaagagaa agagagacac cccacagaga ggggggaagg aggttagatg gggcagtctt  
 120  
 agcttagcct ccaaagacac agatagagtg agagagagag acagagagag acacagagac  
 180  
 agacagagac caaacagaa gcggcaaacg gcaaaaacga agcagaatca atgcaagtta  
 240  
 gagaaaaaaa taaaactaaa catcagagca gggaaaagtc atctactccg tatcacacct  
 300  
 gtgtattagc ttaaccagaa ataagctgga agaggagtgc agtagcctct cagcccccta  
 360  
 aagatgttgg tcataccccc tctttcaccc tctgagtcga gaggacacca agccaaacaa  
 420  
 actgtgcccc aaactgggtc atctagtcct ccagggtcct tccttgctaa ctcgaggaaa  
 480  
 caaggaaaaac caactttgga tggcaacttc aacaaggtaa ccttcctttc ttcaatggcc  
 540  
 agactgatgc ccaactgaca tggctttgag atgcttggac agcagactgt catgtcaaga  
 600



ctgcccagac cccaccaca ctgtggaaaa gggcagcacc agaccactg gagatgaggc  
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 679

<210> 3338  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 3338  
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 Lys Lys Gly Lys Lys Lys Arg Lys Arg Asp Thr Pro Gln Arg Gly Gly  
 20 25 30  
 Lys Glu Val Arg Trp Gly Ser Leu Ser Leu Ala Ser Lys Asp Thr Asp  
 35 40 45  
 Arg Val Arg Glu Arg Asp Arg Glu Arg His Arg Asp Arg Gln Arg Pro  
 50 55 60  
 Lys Gln Lys Arg Gln Thr Ala Lys Thr Lys Gln Asn Gln Cys Lys Leu  
 65 70 75 80  
 Glu Lys Lys Ile Lys Leu Asn Ile Arg Ala Gly Lys Ser His Leu Leu  
 85 90 95  
 Arg Ile Thr Pro Val Tyr  
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<210> 3339  
 <211> 1341  
 <212> DNA  
 <213> Homo sapiens

<400> 3339  
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 aggcattgaca cagggtttgga ttcattaagt cctcatgcag aatttatatc ttctcgataa  
 120  
 agaagccagt tccatccagg atccactatc tacacaccta tgttacaaca ttatatcaaa  
 180  
 tctggatatct gaagaaaaga tacacattta atatgttcat ttaagttacg ttttttcag  
 240  
 aaagattaaa aattcattca cacaaaactc aaaaactgta ttaaaagttt gaatataaaa  
 300  
 ctcagatcca cctggaatga ctaaagaatg gaagtctctgt atccacctgt gttaaaactg  
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 gtaaagttaa tgatatctgt taccaataaa acgcattcgt ttattcaatg taagtaagtt  
 420  
 atctaatttt aacaatatgg caccctaaaa accaactgta tttttatgat gaggcacttt  
 480  
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 actatccgat atatttttaa tatatatata tatatatgtt cttctggctg tagtaatgca  
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ctgtaaagct atttcacagt gcaaaatgat gaaaccagcc caaatgaagg ctgcataata  
 720  
 acaattctga tacaagaaaa tattgacaga gttactggaa cgtgtaacag tagttttttt  
 780  
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 840  
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 900  
 gttctggaag ctttctccgt ttatttggtc aggtgactgt ggtggtatgg aaagaagggg  
 960  
 cctgtttgtt gaagccaagg tgctggaaga actgcctgtg ttgcaatgaa gagacaaagg  
 1020  
 tgtgtcggtc gtggctatct ctcgtgtgct tgggttctct gtctggggat ctccgatttc  
 1080  
 tcctctgcta aggtcagagg tactggtgct taggcgttcc ctggccagcc agtctgagat  
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 1200  
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 1260  
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 1341

<210> 3340  
 <211> 86  
 <212> PRT  
 <213> Homo sapiens

<400> 3340  
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 Ser Val Asn Ile Phe Leu Tyr Gln Asn Cys Tyr Tyr Ala Ala Phe Ile  
 20 25 30  
 Trp Ala Gly Phe Ile Ile Leu His Cys Glu Ile Ala Leu Gln Cys Ile  
 35 40 45  
 Thr Thr Ala Arg Arg Thr Tyr Ile Tyr Ile Tyr Ile Lys Asn Ile Ser  
 50 55 60  
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 65 70 75 80  
 Ala Tyr Thr Gln Asn His  
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<210> 3341  
 <211> 1132  
 <212> DNA  
 <213> Homo sapiens

<400> 3341  
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 120

ctggagcatg accacagacc cattcagggg ggctggcgga ctcttcatcc tggacagtcc  
 180  
 cttactgtat gtcaagtaaa gctgagaatg aagcggagag catcagacag aggagctggg  
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 300  
 gctgggacct tcctccttgg tcccctctg ggcaactcac cggtgccaag catagtgcag  
 360  
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 480  
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 aagatgaaga agcgcactcg cctcgtcctg gactgcctct gtgctcatga cttcagcgat  
 660  
 aagaccgctg acctcatcaa cctgcagcac tacgtcatca aggagaagag gctcagcgag  
 720  
 aggggagactg tggtaattct ctacgacgtg gtccgcgtgg tggaggccct gcaccagaaa  
 780  
 aatatcgtgc acagagacct gaagctgggg aacatggtgc tcaacaagag gacacatcgg  
 840  
 ataaccatca ccaacttctg cctcgggaag catctggtga gcgaggggga cctgctgaag  
 900  
 gaccagagag ggagccctgc ctacatcagt cccgacgtgc tcagcggccg gccgtaccgt  
 960  
 ggcaagccca gtgacatgtg ggccctgggc gtggtgctct tcaccatgct gtatggccag  
 1020  
 ttcccttct acgacagcat cccgcaggag ctcttccgca agatcaaggc tgccgagtat  
 1080  
 accattcctg aggatggacg ggtttctgag aacaccgtgt gtctcatccg ga  
 1132

<210> 3342

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3342

Met Lys Arg Arg Ala Ser Asp Arg Gly Ala Gly Glu Thr Ser Ala Arg  
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 20 25 30  
 Gly Pro Phe Ile Leu Gly Pro Arg Leu Gly Asn Ser Pro Val Pro Ser  
 35 40 45  
 Ile Val Gln Cys Leu Ala Arg Lys Asp Gly Thr Asp Asp Phe Tyr Gln  
 50 55 60  
 Leu Lys Ile Leu Thr Leu Glu Glu Arg Gly Asp Gln Gly Ile Glu Ser  
 65 70 75 80  
 Gln Glu Glu Arg Gln Gly Lys Met Leu Leu His Thr Glu Tyr Ser Leu  
 85 90 95  
 Leu Ser Leu Leu His Thr Gln Asp Gly Val Val His His His Gly Leu

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      100      105      110
Phe Gln Asp Arg Thr Cys Glu Ile Val Glu Asp Thr Glu Ser Ser Arg
      115      120      125
Met Val Lys Lys Met Lys Lys Arg Ile Cys Leu Val Leu Asp Cys Leu
      130      135      140
Cys Ala His Asp Phe Ser Asp Lys Thr Ala Asp Leu Ile Asn Leu Gln
      145      150      155      160
His Tyr Val Ile Lys Glu Lys Arg Leu Ser Glu Arg Glu Thr Val Val
      165      170      175
Ile Phe Tyr Asp Val Val Arg Val Val Glu Ala Leu His Gln Lys Asn
      180      185      190
Ile Val His Arg Asp Leu Lys Leu Gly Asn Met Val Leu Asn Lys Arg
      195      200      205
Thr His Arg Ile Thr Ile Thr Asn Phe Cys Leu Gly Lys His Leu Val
      210      215      220
Ser Glu Gly Asp Leu Leu Lys Asp Gln Arg Gly Ser Pro Ala Tyr Ile
      225      230      235      240
Ser Pro Asp Val Leu Ser Gly Arg Pro Tyr Arg Gly Lys Pro Ser Asp
      245      250      255
Met Trp Ala Leu Gly Val Val Leu Phe Thr Met Leu Tyr Gly Gln Phe
      260      265      270
Pro Phe Tyr Asp Ser Ile Pro Gln Glu Leu Phe Arg Lys Ile Lys Ala
      275      280      285
Ala Glu Tyr Thr Ile Pro Glu Asp Gly Arg Val Ser Glu Asn Thr Val
      290      295      300
Cys Leu Ile Arg
305

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<210> 3343
<211> 594
<212> DNA
<213> Homo sapiens

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<400> 3343
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120
ttcagcatga actgggtcgt gggcagcgcg gacctggaga ttatcaacgc caccactggg
180
cggaggagct gtggggggccc atcccggctc tgcaagcacg tgctgtctgc acggtgggcg
240
cggctgtatg gcaggctgag cacacggaca cccagccctg gagacacgcc ctccatgtac
300
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360
tttcagaagg ctggcctggg cacctgggtg aggaaccac cggagcagca gcagtttcta
420
ctgactctct aggctgcggg ctcttggtg ctggagctga gcgggacgct ggagggatgg
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gaccgtgtct ggggggcgac gtggcgggtc ggccggttcc ctgcattcgt ttacttttg
540
tgtcccagaa acacgcgagt gtgcaatgtt tggacgagca acaaaaaaaaa aaaa
594

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<210> 3344  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 3344  
 Arg Val Met Ser His Arg Met Glu Gly Val Gly Gln Leu Pro Ala Ser  
 1 5 10 15  
 Tyr Arg His Asn Arg Pro Leu Leu Ser Gly Val Ser Asp Thr Glu Ala  
 20 25 30  
 Arg Gln Pro Gly Lys Ser Pro Pro Phe Ser Met Asn Trp Val Val Gly  
 35 40 45  
 Ser Ala Asp Leu Glu Ile Ile Asn Ala Thr Thr Gly Arg Arg Ser Cys  
 50 55 60  
 Gly Gly Pro Ser Arg Leu Cys Lys His Val Leu Ser Ala Arg Trp Ala  
 65 70 75 80  
 Arg Leu Tyr Gly Arg Leu Ser Thr Arg Thr Pro Ser Pro Gly Asp Thr  
 85 90 95  
 Pro Ser Met Tyr Cys Glu Ala Lys Leu Gly Ala His Thr Tyr Gln Ser  
 100 105 110  
 Val Lys Gln Gln Leu Phe Lys Ala Phe Gln Lys Ala Gly Leu Gly Thr  
 115 120 125  
 Trp Val Arg Lys Pro Pro Glu Gln Gln Phe Leu Leu Thr Leu  
 130 135 140

<210> 3345  
 <211> 1149  
 <212> DNA  
 <213> Homo sapiens

<400> 3345  
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 tgggaggcag ggagcttggg cccctcagat gggccacgtg cctcgtggg accctcattg  
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 tcaccgtgag ctctttccaa ggggacgcca ccagtggggg cctgggcagg aggcagctga  
 180  
 ggtgtttcag gaaaaggctg aagatcaagg ctgtggtgtg aggactaccc actttagggg  
 240  
 agtgaaagag gccagcctca cccagacac cccagtgtgg ttggggaaaag ggggtggtcc  
 300  
 gtggtgagcc tggtagctgg ggactcatcc tggccctgcc tggccctcag gtgggatgct  
 360  
 atggaatatg atgagaagct ggcccgttcc cggcaggccc acctcaaccc cttcaacaag  
 420  
 cagtctgggc cgagacagca tgagcagggc cctggggagg aggtcccggg cgtcactcct  
 480  
 gaagaggccc tgctgagct gcccctggg gagccggaat tccgtgccc tgaacgcgtg  
 540  
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 600  
 gacgtccagc agctgcggca ggcgatcgag gaggcaagc aggtgattct ggagctgccc  
 660

gagcagtcgg agaagcagaa ggatgccgtg gtgcgactca tccacctccg gctgaagctc  
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 caggagctga aggaccccaa tgaggatgag ccaaaccatcc gagggtcctt tgagcaccgc  
 780  
 tttacaagg agaagagcaa gagcgtcaag cagacctgtg acaagtgtaa caccatcatc  
 840  
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 900  
 tgcttgaacc tcacttccaa gccctgtgtg agctccaaag tcagccacca agctgaatac  
 960  
 gaactgaaca tctgccctga gacagggtg gacagccagg attaccgctg tgccgagtgc  
 1020  
 cggggcgccca tctctctcgc ggggtgtgcc agtgaggcca ggcagtgcca ctataccggc  
 1080  
 cagtactact gcagccactg ccaactggaac gacctggctg tgatcccaga ggctggagtg  
 1140  
 tgctcgcga  
 1149

<210> 3346

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3346

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Pro	Phe	Asn	Lys	Gln	Ser	Gly	Pro	Arg	Gln	His	Glu	Gln	Gly	Pro	Gly
			20					25					30		
Glu	Glu	Val	Pro	Asp	Val	Thr	Pro	Glu	Glu	Ala	Leu	Pro	Glu	Leu	Pro
		35				40					45				
Pro	Gly	Glu	Pro	Glu	Phe	Arg	Cys	Pro	Glu	Arg	Val	Met	Asp	Leu	Gly
	50				55					60					
Leu	Ser	Glu	Asp	His	Phe	Ser	Arg	Pro	Val	Gly	Leu	Phe	Leu	Ala	Ser
65				70					75					80	
Asp	Val	Gln	Gln	Leu	Arg	Gln	Ala	Ile	Glu	Glu	Cys	Lys	Gln	Val	Ile
			85					90					95		
Leu	Glu	Leu	Pro	Glu	Gln	Ser	Glu	Lys	Gln	Lys	Asp	Ala	Val	Val	Arg
		100						105					110		
Leu	Ile	His	Leu	Arg	Leu	Lys	Leu	Gln	Glu	Leu	Lys	Asp	Pro	Asn	Glu
	115					120						125			
Asp	Glu	Pro	Asn	Ile	Arg	Val	Leu	Leu	Glu	His	Arg	Phe	Tyr	Lys	Glu
	130				135						140				
Lys	Ser	Lys	Ser	Val	Lys	Gln	Thr	Cys	Asp	Lys	Cys	Asn	Thr	Ile	Ile
145				150						155				160	
Trp	Gly	Leu	Ile	Gln	Thr	Trp	Tyr	Thr	Cys	Thr	Gly	Cys	Tyr	Tyr	Arg
		165						170					175		
Cys	His	Ser	Lys	Cys	Leu	Asn	Leu	Ile	Ser	Lys	Pro	Cys	Val	Ser	Ser
		180					185						190		
Lys	Val	Ser	His	Gln	Ala	Glu	Tyr	Glu	Leu	Asn	Ile	Cys	Pro	Glu	Thr
	195					200						205			
Gly	Leu	Asp	Ser	Gln	Asp	Tyr	Arg	Cys	Ala	Glu	Cys	Arg	Ala	Pro	Ile
	210					215					220				
Ser	Leu	Arg	Gly	Val	Pro	Ser	Glu	Ala	Arg	Gln	Cys	Asp	Tyr	Thr	Gly

225                      230                      235                      240  
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<210> 3347  
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 <212> DNA  
 <213> Homo sapiens

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 1980  
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 <211> 288  
 <212> PRT  
 <213> Homo sapiens

<400> 3348  
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 Gln Val Ala Trp Tyr Asn Glu Leu Leu Pro Pro Ala Phe His Leu Pro  
 35 40 45  
 Leu Pro Gly Pro Thr Leu Ala Phe Leu Val Leu Ser Thr Pro Ala Met  
 50 55 60  
 Phe Asp Arg Ala Leu Lys Pro Phe Leu Gln Ser Cys His Leu Arg Met  
 65 70 75 80  
 Leu Thr Asp Pro Val Asp Gln Cys Val Ala Tyr His Leu Gly Arg Val  
 85 90 95  
 Gly Glu Ser Leu Pro Glu Leu Gln Ile Glu Ile Ile Ala Asp Tyr Glu  
 100 105 110



Val His Pro Asn Arg Arg Pro Lys Ile Leu Ala Gln Thr Ala Ala His  
 115 120 125  
 Val Ala Gly Ala Ala Tyr Tyr Gln Arg Gln Asp Val Glu Ala Asp  
 130 135 140  
 Pro Trp Gly Asn Gln Arg Ile Ser Gly Val Cys Ile His Pro Arg Phe  
 145 150 155 160  
 Gly Gly Trp Phe Ala Ile Arg Gly Val Val Leu Leu Pro Gly Ile Glu  
 165 170 175  
 Val Pro Asp Leu Pro Pro Arg Lys Pro His Asp Cys Val Pro Thr Arg  
 180 185 190  
 Ala Asp Arg Ile Ala Leu Leu Glu Gly Phe Asn Phe His Trp Arg Asp  
 195 200 205  
 Trp Thr Tyr Arg Asp Ala Val Thr Pro Gln Glu Arg Tyr Ser Glu Glu  
 210 215 220  
 Gln Lys Ala Tyr Phe Ser Thr Pro Pro Ala Gln Arg Leu Ala Leu Leu  
 225 230 235 240  
 Gly Leu Ala Gln Pro Ser Glu Lys Pro Ser Ser Pro Ser Pro Asp Leu  
 245 250 255  
 Pro Phe Thr Thr Pro Ala Pro Lys Lys Pro Gly Asn Pro Ser Arg Ala  
 260 265 270  
 Arg Ser Trp Leu Ser Pro Arg Val Ser Pro Pro Ala Ser Pro Gly Pro  
 275 280 285

&lt;210&gt; 3349

&lt;211&gt; 1132

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3349

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 300  
 aagaagctgt ttgaagagga gaaattgctg agacaagaag gaaaattaga gaagatccag  
 360  
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 480  
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 600  
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 660  
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 720

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780  
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840  
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900  
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960  
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1132

&lt;210&gt; 3350

&lt;211&gt; 174

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3350

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Asp	Leu	Val	Ser	Val	Lys	Lys	Ser	Leu	Gly	Arg	Asn	Arg	Leu	Leu	Pro
			20					25					30		
Gln	Gly	Leu	Ala	Val	Tyr	Ala	Ser	Pro	Glu	Asn	Lys	Lys	Leu	Phe	Glu
		35					40					45			
Glu	Glu	Lys	Leu	Leu	Arg	Gln	Glu	Gly	Lys	Leu	Glu	Lys	Ile	Gln	Thr
		50				55				60					
Lys	Ala	Gly	Glu	Ala	Thr	Val	Lys	Phe	Leu	Lys	Ser	Cys	Arg	Leu	Glu
65					70				75					80	
Val	Gly	Met	Lys	Asn	Asn	Val	Lys	Trp	Glu	Leu	Asn	Pro	Glu	Ile	Val
			85					90						95	
Ala	Arg	His	Phe	Phe	Lys	Asn	Leu	Gly	Val	Val	Val	Ala	Pro	His	Thr
			100					105					110		
Leu	Lys	Leu	Pro	Ala	Glu	Pro	Ile	Thr	Arg	Trp	Gly	Glu	Tyr	Trp	Cys
		115					120					125			
Glu	Val	Thr	Val	Asn	Gly	Leu	Asp	Thr	Val	Arg	Val	Pro	Met	Ser	Val
		130				135					140				
Val	Asn	Phe	Glu	Lys	Pro	Lys	Thr	Lys	Arg	Tyr	Lys	Tyr	Trp	Leu	Ala
145					150				155					160	
Gln	Gln	Ala	Ala	Lys	Ala	Met	Ala	Pro	Thr	Ser	Pro	Gln	Ile		
			165						170						

&lt;210&gt; 3351

&lt;211&gt; 1422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3351

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120

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 240  
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<210> 3352  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 3352  
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 Ile His Gly Gly Lys His Ser Glu Arg His Pro Ala Leu Ala Ala Ala

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      20      25      30
Pro Arg Cys Ala Glu Arg Arg Gln Gly Gly Val Val Pro Pro Gly His
  35      40      45
Leu Leu Gln Gln Pro Ala Ala Glu Arg Ala Ala His Arg Gly Gln
  50      55      60
Gly Pro Arg Gly Ala Ala Gly Gly Val Arg Val Pro Gly Ala Gln Gly
  65      70      75      80
Ala Gln Arg Ala Ala Gln Glu Thr Glu Phe Pro Ser Gly Ala Ser Thr
      85      90      95
Ser

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<210> 3353  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

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180
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240
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300
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<210> 3354  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

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<400> 3354
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Gly Ile Asn Ile Phe Pro Ser Pro Asp Gln Pro Ala Asn Val Pro Val
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Leu Pro Pro Ala Met Asn Thr Gly Gly Ser Leu Pro Asp Leu Thr Asn
35      40      45
Leu His Phe Pro Pro Pro Leu Pro Thr Pro Leu Asp Pro Glu Glu Thr
50      55      60
Ala Tyr Pro Ser Leu Ser Gly Gly Asn Ser Thr Ser Asn Leu Thr His
65      70      75      80
Thr Met Thr His Leu Gly Ile Ser Arg Gly Met Gly Leu Gly Pro Gly
85      90      95
Tyr Asp Ala Pro Gly Arg Pro Pro Gly Tyr Gln
100      105

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<210> 3355  
<211> 474  
<212> DNA  
<213> Homo sapiens

<400> 3355  
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180  
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474

<210> 3356  
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<212> PRT  
<213> Homo sapiens

<400> 3356  
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Asp Arg Leu Asn Asn Gln Ala Arg Thr Ile Ala Phe Leu Leu Glu Gln  
35 40 45  
Ala Phe Arg Ile Lys Glu Asp Ile Ser Ala Cys Leu Gln Gly Thr His  
50 55 60  
Gly Phe Arg Lys Glu Glu Ser Leu Ala Arg Lys Leu Leu Glu Ser His  
65 70 75 80  
Ile Gln Thr Ile Thr Ser Ile Val Lys Lys Leu Ser Gln Asn Ile Glu  
85 90 95  
Ile Leu Glu Asp Gln Ile Arg Ala Arg Asp Gln Ala Ala Thr Gly Thr  
100 105 110  
Asn Phe Ala Val His Glu Ile Asn Ile Lys His Leu Gln Gly Val Gly  
115 120 125  
Arg Ser Phe  
130

<210> 3357  
<211> 2268  
<212> DNA  
<213> Homo sapiens

<400> 3357

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180  
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240  
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420  
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960  
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1140  
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1320  
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1380  
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1440  
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1620

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 2160  
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 2268

<210> 3358

<211> 493

<212> PRT

<213> Homo sapiens

<400> 3358

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 35 40 45  
 Ala Gln Ala Ile His Pro Gly Cys Gly Phe Leu Ser Glu Asn Met Glu  
 50 55 60  
 Phe Ala Glu Leu Cys Lys Gln Glu Gly Ile Ile Phe Ile Gly Pro Pro  
 65 70 75 80  
 Pro Ser Ala Ile Arg Asp Met Gly Ile Lys Ser Thr Ser Lys Ser Ile  
 85 90 95  
 Met Ala Ala Ala Gly Val Pro Val Val Glu Gly Tyr His Gly Glu Asp  
 100 105 110  
 Gln Ser Asp Gln Cys Leu Lys Glu His Ala Arg Arg Ile Gly Tyr Pro  
 115 120 125  
 Val Met Ile Lys Ala Val Arg Gly Gly Gly Lys Gly Met Arg Ile  
 130 135 140  
 Val Arg Ser Glu Gln Glu Phe Gln Glu Gln Leu Glu Ser Ala Arg Arg  
 145 150 155 160  
 Glu Ala Lys Lys Ser Phe Asn Asp Asp Ala Met Leu Ile Glu Lys Phe  
 165 170 175  
 Val Asp Thr Pro Arg His Val Glu Val Gln Val Phe Gly Asp His His  
 180 185 190  
 Gly Asn Ala Val Tyr Leu Phe Glu Arg Asp Cys Ser Val Gln Arg Arg

```

      195              200              205
His Gln Lys Ile Ile Glu Glu Ala Pro Ala Pro Gly Ile Lys Ser Glu
 210              215              220
Val Arg Lys Lys Leu Gly Glu Ala Ala Val Arg Ala Ala Lys Ala Val
 225              230              235              240
Asn Tyr Val Gly Ala Gly Thr Val Glu Phe Ile Met Asp Ser Lys His
      245              250              255
Asn Phe Cys Phe Met Glu Met Asn Thr Arg Leu Gln Val Glu His Pro
 260              265              270
Val Thr Glu Met Ile Thr Gly Thr Asp Leu Val Glu Trp Gln Leu Arg
 275              280              285
Ile Ala Ala Gly Glu Lys Ile Pro Leu Ser Gln Glu Glu Ile Thr Leu
 290              295              300
Gln Gly His Ala Phe Glu Ala Arg Ile Tyr Ala Glu Asp Pro Ser Asn
 305              310              315              320
Asn Phe Met Pro Val Ala Gly Pro Leu Val His Leu Ser Thr Pro Arg
      325              330              335
Ala Asp Pro Ser Thr Arg Ile Glu Thr Gly Val Arg Gln Gly Asp Glu
 340              345              350
Val Ser Val His Tyr Asp Pro Met Ile Ala Lys Leu Val Val Trp Ala
 355              360              365
Ala Asp Arg Gln Ala Ala Leu Thr Lys Leu Arg Tyr Ser Leu Arg Gln
 370              375              380
Tyr Asn Ile Val Gly Leu His Thr Asn Ile Asp Phe Leu Leu Asn Leu
 385              390              395              400
Ser Gly His Pro Glu Phe Glu Ala Gly Asn Val His Thr Asp Phe Ile
      405              410              415
Pro Gln His His Lys Gln Leu Leu Leu Ser Arg Lys Ala Ala Ala Lys
 420              425              430
Glu Ser Leu Cys Gln Ala Ala Leu Gly Leu Ile Leu Lys Glu Lys Ala
 435              440              445
Met Thr Asp Thr Phe Thr Leu Gln Ala His Asp Gln Phe Ser Pro Phe
 450              455              460
Ser Ser Ser Ser Gly Arg Arg Leu Asn Ile Ser Tyr Thr Arg Asn Met
 465              470              475              480
Thr Leu Lys Asp Gly Lys Asn Ser Phe Arg Leu Leu Gly
      485              490

```

&lt;210&gt; 3359

&lt;211&gt; 652

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3359

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ntccggacgt aatcgtaggt tttgttctgc aataggcggc ttagagggag gggctttttc
60
gcctatacct actgtagctt ctccacgtat ggaccctaaa ggctactgct gctactacgg
120
ggctagacag ttactgtctc agctctagga tgtgcgttct tccactagaa gctcttctga
180
gggaggtaat taaaaaacag tggaatggaa aaacagtgtc gtatgcaccc tgtaatatgc
240
tccttgtaaa caatgtatac attcctgcta ggtgccatat tcattgcttt aagctcaagt
300

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cgcatcttac tagtgaagta ttctgccaat gaagaaaaca agtatgatta tcttccaact  
 360  
 actgtgaatg tgtgctcaga actggtgaag ctagttttct gtgtgcttgt gtcattctgt  
 420  
 gttataaaga aagatcatca aagtagaaat ttgaaatatg cttcctggaa ggaattctct  
 480  
 gatttcatga agtgggccat tcctgccttt ctttatttcc tggataactt gattgtcttc  
 540  
 tatgtcctgt cctatcttca accagccatg gctgttatct tctcaaatat tagcattata  
 600  
 acaacagctc ttctattcag gatagtgtg aagaggcgtc taaactggat cc  
 652

<210> 3360

<211> 149

<212> PRT

<213> Homo sapiens

<400> 3360

Met	Glu	Lys	Gln	Cys	Cys	Ser	His	Pro	Val	Ile	Cys	Ser	Leu	Ser	Thr
1				5					10					15	
Met	Tyr	Thr	Phe	Leu	Leu	Gly	Ala	Ile	Phe	Ile	Ala	Leu	Ser	Ser	Ser
			20					25					30		
Arg	Ile	Leu	Leu	Val	Lys	Tyr	Ser	Ala	Asn	Glu	Glu	Asn	Lys	Tyr	Asp
	35					40						45			
Tyr	Leu	Pro	Thr	Thr	Val	Asn	Val	Cys	Ser	Glu	Leu	Val	Lys	Leu	Val
	50					55					60				
Phe	Cys	Val	Leu	Val	Ser	Phe	Cys	Val	Ile	Lys	Lys	Asp	His	Gln	Ser
65				70					75					80	
Arg	Asn	Leu	Lys	Tyr	Ala	Ser	Trp	Lys	Glu	Phe	Ser	Asp	Phe	Met	Lys
			85					90						95	
Trp	Ser	Ile	Pro	Ala	Phe	Leu	Tyr	Phe	Leu	Asp	Asn	Leu	Ile	Val	Phe
			100					105					110		
Tyr	Val	Leu	Ser	Tyr	Leu	Gln	Pro	Ala	Met	Ala	Val	Ile	Phe	Ser	Asn
	115					120						125			
Phe	Ser	Ile	Ile	Thr	Thr	Ala	Leu	Leu	Phe	Arg	Ile	Val	Leu	Lys	Arg
	130					135						140			
Arg	Leu	Asn	Trp	Ile											
145															

<210> 3361

<211> 1040

<212> DNA

<213> Homo sapiens

<400> 3361

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 60  
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 120  
 ggagtcgcct gcgcgcgcag cggaggccag tgcgcggcg catagcgagc ccgggtctgt  
 180  
 gatcgccgag gcgggagtga agatagtcca agtcctaaga gacagcgct ctctcattca  
 240

gtctttgatt atacatcagc atcaccagct ccctcaccac caatgcgacc atgggagatg  
 300  
 acatcaaata ggcagccccc ttcagttcga ccaagccaac atcacttttc aggggaacga  
 360  
 tgcaacacac ctgcacgcaa cagaagaagt cctcctgtca ggcgccagag aggaagaagg  
 420  
 gatcgtctgt ctgcacataa ttccattagt caagatgaaa actatcacca tctcccttac  
 480  
 gcacagcagc aagcaataga ggagcctcga gccttccacc ctccgaatgt atctccccgt  
 540  
 ctgctacatc ctgctgtcca tccaccccag cagaatgcag tcattggtga catacatgat  
 600  
 cagctccatc aaggaacagt cctgttttct tacacagtaa caacagtggc accacatggg  
 660  
 attcactctt gcacaggcca gcacatccct gctttagta cacagcaggt cccaggatgc  
 720  
 tctgtggttt tcagtggaac gcacctccct gtctgtagtg tgcctcctcc aatgcttcag  
 780  
 gcattgttcag ttcagcactt accagtacca tatgtgcat tccacccct tatttctagt  
 840  
 gatccatttc ttatataccc tctcacctt tctccccatc atcctcctca ttgtccacca  
 900  
 ccaggccagt ttgtcccttt ccaaacacag caatcacgat cgctctgca aaggatagaa  
 960  
 aatgaagtgg aactcttagg agaacatctt ccaggagccc acccccagca ccccatctg  
 1020  
 ttaataaata tctcaactcc  
 1040

&lt;210&gt; 3362

&lt;211&gt; 252

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3362

Met Arg Pro Trp Glu Met Thr Ser Asn Arg Gln Pro Pro Ser Val Arg  
 1 5 10 15  
 Pro Ser Gln His His Phe Ser Gly Glu Arg Cys Asn Thr Pro Ala Arg  
 20 25 30  
 Asn Arg Arg Ser Pro Pro Val Arg Arg Gln Arg Gly Arg Arg Asp Arg  
 35 40 45  
 Leu Ser Arg His Asn Ser Ile Ser Gln Asp Glu Asn Tyr His His Leu  
 50 55 60  
 Pro Tyr Ala Gln Gln Gln Ala Ile Glu Glu Pro Arg Ala Phe His Pro  
 65 70 75 80  
 Pro Asn Val Ser Pro Arg Leu Leu His Pro Ala Ala His Pro Pro Gln  
 85 90 95  
 Gln Asn Ala Val Met Val Asp Ile His Asp Gln Leu His Gln Gly Thr  
 100 105 110  
 Val Pro Val Ser Tyr Thr Val Thr Thr Val Ala Pro His Gly Ile Pro  
 115 120 125  
 Leu Cys Thr Gly Gln His Ile Pro Ala Cys Ser Thr Gln Gln Val Pro  
 130 135 140  
 Gly Cys Ser Val Val Phe Ser Gly Gln His Leu Pro Val Cys Ser Val

```

145          150          155          160
Pro Pro Pro Met Leu Gln Ala Cys Ser Val Gln His Leu Pro Val Pro
          165          170          175
Tyr Ala Ala Phe Pro Pro Leu Ile Ser Ser Asp Pro Phe Leu Ile His
          180          185          190
Pro Pro His Leu Ser Pro His His Pro Pro His Leu Pro Pro Gly
          195          200          205
Gln Phe Val Pro Phe Gln Thr Gln Gln Ser Arg Ser Pro Leu Gln Arg
          210          215          220
Ile Glu Asn Glu Val Glu Leu Leu Gly Glu His Leu Pro Gly Ala His
          225          230          235          240
Pro Gln His Pro His Leu Leu Ile Asn Ile Ser Thr
          245          250

```

<210> 3363  
 <211> 718  
 <212> DNA  
 <213> Homo sapiens

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<400> 3363
cagaaggacc ccaggatggc ggtcatcatg cccaggaacg ttggtgatgg ggaatgggtt
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ggccagcatg atcagggacc ccgtcatgcc catgattttt tgggtggcat tggcgaccga
120
gtagctcagg agtgtctccg gagcccaactg gagaagcccc ccaacggcct cctcttcccc
180
cagcacgggg actatcagta cggccgcaac aacatctaaa cagaccactt ccaatacagc
240
cggcagagct acccaaaactc gtacagtgtt aaccgctatg atgtgtagag tccaaaggac
300
aggaccagac tgttgggtgac tccttccccg gccccacag cagtatcaga aacttctgac
360
aatcagtgaa tgtacaaccc agccgagggg acggtgcata actctccatc agaagccctg
420
gggttccttg cccccctga gccgcaggag gatgcgttgc ctgcagtga gacggccgtg
480
agctctgggc aaacctaaac agagaccagt gtcccatgct ctttcttctt ggagcctgtc
540
atctgagggc cgtgtccctg cggagatctt ggccacgttg tacctttcca tgtggaatta
600
ttcccaagc agtgtagctc agagcacttg tgtctgcatt ccagataaca ttcaggacct
660
gtgtgaaaag ctgggggtcac tgtggctgta gaccatgaac tggcagtggg ggtgtcca
718

```

<210> 3364  
 <211> 163  
 <212> PRT  
 <213> Homo sapiens

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<400> 3364
Met Gly His Trp Ser Leu Phe Arg Phe Ala Gln Ser Ser Arg Pro Ser
1      5      10      15
Ala Leu Gln Ala Thr His Pro Pro Ala Ala His Gly Gly Pro Gly Thr

```

	20		25		30
Pro Gly	Leu Met Glu Ser Tyr Ala	Pro Ser Pro Arg	Leu Gly Cys		
	35	40	45		
Thr Phe Thr	Asp Cys Gln Lys Phe Leu Ile Leu	Leu Trp Gly Pro Gly			
	50	55	60		
Lys Glu Ser	Pro Thr Val Trp Ser Cys Pro Leu Asp	Ser Thr His His			
	65	70	75	80	
Ser Gly Ser	Asn Cys Thr Ser Leu Gly Ser Ser Ala	Gly Cys Ile Gly			
	85	90	95		
Ser Gly Leu	Phe Arg Cys Cys Cys Gly Arg Thr Asp	Ser Pro Arg Ala			
	100	105	110		
Gly Gly Arg	Gly Gly Arg Trp Gly Ala Ser Pro Val	Gly Ser Gly Asp			
	115	120	125		
Thr Pro Glu	Leu Leu Gly Arg Gln Cys His Pro Lys	Asn His Gly His			
	130	135	140		
Asp Gly Val	Pro Asp His Ala Gly Gln Pro Ile Pro	His His Gln Arg			
	145	150	155	160	
Ser Trp Ala					

<210> 3365  
 <211> 2389  
 <212> PNA  
 <213> Homo sapiens

<400> 3365  
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 60  
 tctcttcctt tcttttcctt ttctcttccc tatttgaaat tggcatcgag ggggctaagt  
 120  
 tcgggtggca gcgcggggcg caacgcaggg gtcacggcga cggcggcggc ggctgacggc  
 180  
 tggaagggtg ggcttccttc accgctcgtc ctcttccttc gctccgctcg gtgtcaggcg  
 240  
 cggcggcggc gcggcgggcg gacttcgtcc ctctcctgc tccccccac accggagcgg  
 300  
 gcactcttcg ctctgccatc ccccgacctc tcaccccgag gactgggcgc ctcttcgggc  
 360  
 gcagctgagg gagcgggggc cgggtctcctg ctcggttgtc gagcctccat gtcggataat  
 420  
 cagaactgga actcgtcggg ctccggaggag gatccagaga cggagtcttg gccgcctgtg  
 480  
 gagcgctcgc gggctcctcag taagtggaca aactacattc atgggtggca ggatcgttgg  
 540  
 gtagttttga aaaataatgc tctgagttac tacaaatctg aagatgaaac agagtatggc  
 600  
 tgcagaggat ccatctgtct tagcaaggct gtcattcacac ctacgattt tgatgaatgt  
 660  
 cgatttgata ttagtgtaaa tgatagtgtt tgggtatctc gtgctcagga tccagatcat  
 720  
 agacagcaat ggatagatgc cattgaacag cacaagactg aatctggata tggatctgaa  
 780  
 tccagcttgc gtcgacatgg ctcaatgggt tccctgggtg ctggagcaag tggctactct  
 840

gcaacatcca cctcttcatt caagaaaggc cacagtttac gtgagaagtt ggctgaaatg  
900  
gaaacattta gagacatctt atgtagacaa gttgacacgc tacagaagta ctttgatgcc  
960  
tgtgctgatg ctgtctctaa ggatgaactt caaagggata aagtggtaga agatgatgaa  
1020  
gatgactttc ctacaacgcy ttctgatggg gacttcttgc atagtaccaa cggcaataaa  
1080  
gaaaagttat ttccacatgt gacacccaaa ggaattaatg gtatagactt taaaggggaa  
1140  
gcgataaactt ttaaagcaac tactgctgga atccttgcaa cactttctca ttgtattgaa  
1200  
ctaattggta aacgtgagga cagctggcag aagagactgg ataaggaaac tgagaagaaa  
1260  
agaagaacag aggaagcata taaaaatgca atgacagaac ttaagaaaaa atccacttt  
1320  
ggaggaccag attatgaaga aggcctaac agtctgatta atgaagaaga gttctttgat  
1380  
gctgttgaag ctgtctctga cagacaagat aaaatagaag aacagtcaca gagtgaagaa  
1440  
gtgagattac attggcctac atccttgccc tctggagatg ccttttcttc tgtggggaca  
1500  
catagatttg tccaaaagcc ctatagtcgc tcttctctca tgtcttccat tgatctagtc  
1560  
agtgcctctg atgatgttca cagattcagc tcccagggtg aagagatggg gcagaaccac  
1620  
atgacttact cattacagga tgtaggcgga gatgccaatt ggcagttggg tgtagaagaa  
1680  
ggagaaaatg aggtatacag aagagaagta gaagaaaatg ggattgttct ggatccttta  
1740  
aaagctaccc atgcagttaa aggcgtcaca ggacatgaag tctgcaatta tttctggaat  
1800  
gttgacgttc gcaatgactg ggaaacaact atagaaaact ttcagtgggt ggaaacatta  
1860  
gctgataatg caatcatcat ttatcaaaca cacaagaggg tgtggcctgc ttctcagcga  
1920  
gacgtattat atctttctgt cattcgaaag ataccagcct tgactgaaa tgacctgaa  
1980  
acttgatag tttgtaattt ttctgtggat catgacagtg ctctctctaa caaccgatgt  
2040  
gtccgtgcca aaataaatgt tgctatgatt tgtcaaacct tggtaaagccc accagagggg  
2100  
aaccaggaaa ttagcagggg caacattcta tgcaagatta catatgtagc taatgtgaac  
2160  
cctggaggat gggcaccagc ctgagtgtta agggcagtgg caaagcgaga gtatcctaaa  
2220  
tttctaaaac gttttacttc ttacgtccaa gaaaaaactg caggaaagcc tattttggtc  
2280  
tagtattaac aggtactaga agtatgttt tatctttttt taactttatt tgactaatat  
2340  
gactgtcaat actaaaaatt agttgttgaa agtatttact atgtttttt  
2389

&lt;210&gt; 3366

<211> 624  
 <212> PRT  
 <213> Homo sapiens

<400> 3366

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Met Ser Asp Asn Gln Asn Trp Asn Ser Ser Gly Ser Glu Glu Asp Pro
1           5           10           15
Glu Thr Glu Ser Gly Pro Pro Val Glu Arg Cys Gly Val Leu Ser Lys
20           25           30
Trp Thr Asn Tyr Ile His Gly Trp Gln Asp Arg Trp Val Val Leu Lys
35           40           45
Asn Asn Ala Leu Ser Tyr Tyr Lys Ser Glu Asp Glu Thr Glu Tyr Gly
50           55           60
Cys Arg Gly Ser Ile Cys Leu Ser Lys Ala Val Ile Thr Pro His Asp
65           70           75           80
Phe Asp Glu Cys Arg Phe Asp Ile Ser Val Asn Asp Ser Val Trp Tyr
85           90           95
Leu Arg Ala Gln Asp Pro Asp His Arg Gln Gln Trp Ile Asp Ala Ile
100          105          110
Glu Gln His Lys Thr Glu Ser Gly Tyr Gly Ser Glu Ser Ser Leu Arg
115          120          125
Arg His Gly Ser Met Val Ser Leu Val Ser Gly Ala Ser Gly Tyr Ser
130          135          140
Ala Thr Ser Thr Ser Ser Phe Lys Lys Gly His Ser Leu Arg Glu Lys
145          150          155          160
Leu Ala Glu Met Glu Thr Phe Arg Asp Ile Leu Cys Arg Gln Val Asp
165          170          175
Thr Leu Gln Lys Tyr Phe Asp Ala Cys Ala Asp Ala Val Ser Lys Asp
180          185          190
Glu Leu Gln Arg Asp Lys Val Val Glu Asp Asp Glu Asp Asp Phe Pro
195          200          205
Thr Thr Arg Ser Asp Gly Asp Phe Leu His Ser Thr Asn Gly Asn Lys
210          215          220
Glu Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp
225          230          235          240
Phe Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu
245          250          255
Ala Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Asp Ser
260          265          270
Trp Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu
275          280          285
Glu Ala Tyr Lys Asn Ala Met Thr Glu Leu Lys Lys Lys Ser His Phe
290          295          300
Gly Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu
305          310          315          320
Glu Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile
325          330          335
Glu Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Ser
340          345          350
Leu Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val
355          360          365
Gln Lys Pro Tyr Ser Arg Ser Ser Met Ser Ser Ile Asp Leu Val
370          375          380
Ser Ala Ser Asp Asp Val His Arg Phe Ser Ser Gln Val Glu Glu Met

```

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385          390          395          400
Val Gln Asn His Met Thr Tyr Ser Leu Gln Asp Val Gly Gly Asp Ala
          405          410          415
Asn Trp Gln Leu Val Val Glu Glu Gly Glu Met Lys Val Tyr Arg Arg
          420          425          430
Glu Val Glu Glu Asn Gly Ile Val Leu Asp Pro Leu Lys Ala Thr His
          435          440          445
Ala Val Lys Gly Val Thr Gly His Glu Val Cys Asn Tyr Phe Trp Asn
          450          455          460
Val Asp Val Arg Asn Asp Trp Glu Thr Thr Ile Glu Asn Phe His Val
465          470          475          480
Val Glu Thr Leu Ala Asp Asn Ala Ile Ile Ile Tyr Gln Thr His Lys
          485          490          495
Arg Val Trp Pro Ala Ser Gln Arg Asp Val Leu Tyr Leu Ser Val Ile
          500          505          510
Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp Pro Glu Thr Trp Ile Val
          515          520          525
Cys Asn Phe Ser Val Asp His Asp Ser Ala Pro Leu Asn Asn Arg Cys
          530          535          540
Val Arg Ala Lys Ile Asn Val Ala Met Ile Cys Gln Thr Leu Val Ser
545          550          555          560
Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg Asp Asn Ile Leu Cys Lys
          565          570          575
Ile Thr Tyr Val Ala Asn Val Asn Pro Gly Gly Trp Ala Pro Ala Ser
          580          585          590
Val Leu Arg Ala Val Ala Lys Arg Glu Tyr Pro Lys Phe Leu Lys Arg
          595          600          605
Phe Thr Ser Tyr Val Gln Glu Lys Thr Ala Gly Lys Pro Ile Leu Phe
          610          615          620

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<210> 3367
<211> 366
<212> DNA
<213> Homo sapiens

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<400> 3367
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gagaattacg ccacagaggt gttggaggct ggcacgtggt catctcagga gcacggaggg
120
tgccttcccc acttcaggcc tcttagtgtc aaggatgtga gaggcaaggg ctgctggggag
180
agtattttac ggactgaagg aggcgtgccg cctgccctgc cctcctactg gtggaggaag
240
gagggtgctgg gagccccaca actcagggcc ccccgacgcc cagtaaggcc actgtacacc
300
cttcctgacc cagaccataa ccagcctccg attgtgcttt tgaccctggt tccttcaggc
360
accagg
366

```

```

<210> 3368
<211> 104
<212> PRT

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&lt;213&gt; Homo sapiens

&lt;400&gt; 3368

```

Met Thr Glu Asn Tyr Ala Thr Glu Val Leu Glu Ala Gly Ile Val Ala
 1             5             10             15
Ser Gln Glu His Gly Gly Cys Leu Pro His Phe Arg Pro Leu Ser Val
      20             25             30
Lys Asp Val Arg Gly Lys Gly Cys Trp Glu Ser Ile Leu Arg Thr Glu
      35             40             45
Gly Gly Val Pro Pro Ala Leu Pro Ser Tyr Trp Trp Arg Lys Glu Val
      50             55             60
Leu Gly Ala Pro Gln Leu Arg Ala Pro Arg Arg Pro Val Arg Pro Leu
      65             70             75             80
Tyr Thr Pro Pro Asp Pro Asp His Asn Gln Pro Pro Ile Val Leu Leu
      85             90             95
Thr Leu Phe Pro Ser Gly Thr Arg
      100

```

&lt;210&gt; 3369

&lt;211&gt; 1405

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3369

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cttgttccag ggaaaagctt tcagcagcaa aggggaagcca tgaaacaaac catagaagaa
60
gataaggagc agaaaaatca ggaaaactgt ggtgcaaaga agaataaaaa gaaggaggaa
120
aagggtttat ataattgcaa taaaaatgat gattatgaca acgaggagat cttaacctat
180
gaggaaatgt cactttatca tcagccagca aataggaaga gacctatcat cttgattggt
240
ccacagaact gtggccagaa tgaattgctg cagaggctca tgaacaaaga aaaggaccgc
300
tttgcactctg cagttcctca tacaaccggg agtaggcgag accaagaagt agccggtaga
360
gattaccact ttgtttcgcg gcaagcattc gaggcagaca tagcagctgg aaagttcatt
420
gagcatgggtg aatttgagaa gaatttgatg ggaactagca tagattctgt acggcaagtg
480
atcaactctg gcaaaatatg tcttttaagt cttcgtacac agtcattgaa gactctccgg
540
aattcagatt tgaaccata tattatcttc attgcacccc cttcacaaga aagacttcgg
600
gcattattgg ccaagaagg caagaatcca aagcctgaag agttgagaga aatcattgag
660
aagacaagag agatggagca gaacaatggc cactactttg atacggcaat tgtgaattcc
720
gatcttgata aagcctatca ggaattgctt aggttaatta acaaacttga tactgaacct
780
cagtgggtac catccacttg gctgaggtga aagaacatc cattctgtgg catgttgga
840
ttgatctggc aaaaactgcc aataggagga ctgcccagca ctgcagcaag attgaggata
900

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agatggaagg cagcagtata agctgtagat ctgttcttag atctcttgaa ttagtgagac  
 960  
 gacagttccc ttaggcagtt tgtgcatggc atcctttatt ctctatacat ggcttttagcg  
 1020  
 gttcttgcct cattttggga ttctaaatgg aagctttcaa cagagcattc cattttgtcc  
 1080  
 tgttaaaacc ttttgttttc acctaaaccc tttctgctta gttgtatctc tgtgaaaaac  
 1140  
 ttgtatacac aagcgctccat gtctcacaca aatattgatg tgattattct taagtgttaa  
 1200  
 atcattaaca cttaaagtac ttcattggga atattgagca gagggactgt gcttctatgc  
 1260  
 actgggcaag gcagtatttg cttaggaaac taatttagtc atcagagata ctttcctaaa  
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<210> 3370

<211> 269

<212> PRT

<213> Homo sapiens

<400> 3370

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Lys	Lys	Asn	Lys	Lys	Lys	Arg	Lys	Lys	Val	Leu	Tyr	Asn	Ala	Asn	Lys
		35				40						45			
Asn	Asp	Asp	Tyr	Asp	Asn	Glu	Glu	Ile	Leu	Thr	Tyr	Glu	Glu	Met	Ser
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Leu	Tyr	His	Gln	Pro	Ala	Asn	Arg	Lys	Arg	Pro	Ile	Ile	Leu	Ile	Gly
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Pro	Gln	Asn	Cys	Gly	Gln	Asn	Glu	Leu	Arg	Gln	Arg	Leu	Met	Asn	Lys
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Glu	Lys	Asp	Arg	Phe	Ala	Ser	Ala	Val	Pro	His	Thr	Thr	Arg	Ser	Arg
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Arg	Asp	Gln	Glu	Val	Ala	Gly	Arg	Asp	Tyr	His	Phe	Val	Ser	Arg	Gln
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Ala	Phe	Glu	Ala	Asp	Ile	Ala	Ala	Gly	Lys	Phe	Ile	Glu	His	Gly	Glu
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Phe	Glu	Lys	Asn	Leu	Tyr	Gly	Thr	Ser	Ile	Asp	Ser	Val	Arg	Gln	Val
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Ile	Asn	Ser	Gly	Lys	Ile	Cys	Leu	Leu	Ser	Leu	Arg	Thr	Gln	Ser	Leu
			165						170					175	
Lys	Thr	Leu	Arg	Asn	Ser	Asp	Leu	Lys	Pro	Tyr	Ile	Ile	Phe	Ile	Ala
			180					185					190		
Pro	Pro	Ser	Gln	Glu	Arg	Leu	Arg	Ala	Leu	Leu	Ala	Lys	Glu	Gly	Lys
		195				200						205			
Asn	Pro	Lys	Pro	Glu	Glu	Leu	Arg	Glu	Ile	Ile	Glu	Lys	Thr	Arg	Glu
		210				215					220				
Met	Glu	Gln	Asn	Asn	Gly	His	Tyr	Phe	Asp	Thr	Ala	Ile	Val	Asn	Ser

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 Asp Leu Asp Lys Ala Tyr Gln Glu Leu Leu Arg Leu Ile Asn Lys Leu  
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 <212> DNA  
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 <211> 198  
 <212> PRT  
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 Pro Arg Pro Arg Phe Arg Gln Glu Thr Gly His Pro Ser Leu Gln Arg  
 35                      40                      45  
 Asp Phe Pro Arg Ser Phe Leu Leu Asp Leu Pro Asn Phe Pro Asp Leu

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Glu Val Val Asp Gly Pro Asp Ser Glu Ala Asp Lys Asp Gln His Pro
      85              90              95
Glu Asn Lys Pro Ser Trp Ser Val Pro Ser Pro Asp Trp Arg Ala Trp
      100             105             110
Trp Gln Arg Ser Leu Ser Leu Ala Arg Ala Asn Ser Gly Asp Gln Asp
      115             120             125
Tyr Lys Tyr Asp Ser Thr Ser Asp Asp Ser Asn Phe Leu Asn Pro Pro
      130             135             140
Arg Gly Trp Asp His Thr Ala Pro Gly His Arg Thr Phe Glu Thr Lys
      145             150             155             160
Asp Gln Pro Glu Tyr Asp Ser Thr Asp Gly Glu Gly Asp Trp Ser Leu
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Trp Ser Val Cys Ser Val Thr Cys Gly Asn Gly Asn Gln Lys Arg Thr
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Arg Ser Cys Gly Tyr Ala
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726

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 <212> PRT  
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<400> 3374  
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 Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro  
 35 40 45  
 Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile  
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 Trp Phe Leu Leu Leu Ala Val Asp Gly Cys Val Leu Gly Ser Cys Arg  
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 Gly Arg Gly Leu

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 <211> 393  
 <212> DNA  
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<210> 3376  
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<400> 3376  
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 35 40 45  
 Pro Gly Ser Ser Trp Pro Arg Leu Ala Leu Lys Ser Arg Pro Gly Cys  
 50 55 60  
 Arg Ala Arg Ser Ala Ala Ser Gly Ala Pro Gly Thr Val Arg Ser Pro

65                      70                      75                      80  
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 <212> DNA  
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<211> 970

<212> PRT

<213> Homo sapiens

<400> 3378

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			20				25						30		
Thr	Gln	Ile	Gly	Gln	Tyr	Gly	Asn	Gly	Leu	Lys	Ser	Gly	Ser	Met	Arg
		35					40					45			
Ile	Gly	Lys	Asp	Phe	Ile	Leu	Phe	Thr	Lys	Lys	Glu	Asp	Thr	Met	Thr
	50					55					60				
Cys	Leu	Phe	Leu	Ser	Arg	Thr	Phe	His	Glu	Glu	Glu	Gly	Ile	Asp	Glu
	65				70					75				80	
Val	Ile	Val	Pro	Leu	Pro	Thr	Trp	Asn	Ala	Arg	Thr	Arg	Glu	Pro	Val
			85						90					95	
Thr	Asp	Asn	Val	Glu	Lys	Phe	Ala	Ile	Glu	Thr	Glu	Leu	Ile	Tyr	Lys
		100					105						110		
Tyr	Ser	Pro	Phe	Arg	Thr	Glu	Glu	Glu	Val	Met	Thr	Gln	Phe	Met	Lys
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Ile	Pro	Gly	Asp	Ser	Gly	Thr	Leu	Val	Ile	Ile	Phe	Asn	Leu	Lys	Leu
	130				135						140				
Met	Asp	Asn	Gly	Glu	Pro	Glu	Leu	Asp	Ile	Ile	Ser	Asn	Pro	Arg	Asp
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 180 185 190  
 Ile Phe Ile His Gly His Lys Val Gln Thr Lys Arg Leu Ser Cys Cys  
 195 200 205  
 Leu Tyr Lys Pro Arg Met Tyr Lys Tyr Thr Ser Ser Arg Phe Lys Thr  
 210 215 220  
 Arg Ala Glu Gln Glu Val Arg Ile Ala Val His Val Ala Arg Ile Ala  
 225 230 235 240  
 Glu Glu Lys Ala Arg Glu Ala Glu Ser Lys Ala Arg Thr Leu Glu Val  
 245 250 255  
 Arg Leu Gly Gly Asp Leu Thr Arg Asp Ser Arg Val Met Leu Arg Gln  
 260 265 270  
 Val Gln Asn Arg Ala Ile Thr Leu Arg Arg Glu Ala Asp Val Lys Lys  
 275 280 285  
 Arg Ile Lys Glu Ala Lys Gln Arg Ala Leu Lys Glu Pro Lys Glu Leu  
 290 295 300  
 Asn Phe Val Phe Gly Val Asn Ile Glu His Arg Asp Leu Asp Gly Met  
 305 310 315 320  
 Phe Ile Tyr Asn Cys Ser Arg Leu Ile Lys Met Tyr Glu Lys Val Gly  
 325 330 335  
 Pro Gln Leu Glu Gly Gly Met Ala Cys Gly Gly Val Val Gly Val Val  
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 Asp Val Pro Tyr Leu Val Leu Glu Pro Thr His Asn Lys Gln Asp Phe  
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 385 390 395 400  
 Lys Phe Trp Asp Glu Phe Gly Tyr Leu Ser Ala Asn Trp Asn Gln Pro  
 405 410 415  
 Pro Ser Ser Glu Leu Arg Tyr Lys Arg Arg Arg Ala Met Glu Ile Pro  
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 Gln Lys Val Pro Leu Gly Thr Phe Arg Lys Asp Met Lys Thr Gln Glu  
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 500 505 510  
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 Lys Lys Leu Pro Leu Glu Val Thr Thr Arg Pro Ser Thr Glu Glu Pro  
 530 535 540  
 Val Arg Arg Pro Gln Arg Pro Arg Ser Pro Pro Leu Pro Ala Val Ile  
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 Ser Gln Pro Arg Lys Ala Pro Val Ile Ser Ser Thr Pro Lys Leu Pro  
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 Ala Leu Ala Ala Arg Glu Glu Ala Ser Thr Ser Arg Leu Leu Gln Pro

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610      615      620
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625      630      635      640
Ser Lys Ser Pro Arg Glu Val Pro Ser Pro Lys Val Ile Lys Thr Pro
      645      650      655
Val Val Lys Lys Thr Glu Ser Pro Ile Lys Leu Ser Pro Ala Thr Pro
      660      665      670
Ser Arg Lys Arg Ser Val Ala Val Ser Asp Glu Glu Glu Val Glu Glu
      675      680      685
Glu Ala Glu Arg Arg Lys Glu Arg Cys Lys Arg Gly Arg Phe Val Val
      690      695      700
Lys Glu Glu Lys Lys Asp Ser Asn Glu Leu Ser Asp Ser Ala Gly Gly
705      710      715      720
Glu Asp Ser Ala Asp Leu Lys Arg Ala Gln Lys Asp Lys Gly Leu His
      725      730      735
Val Glu Val Arg Val Asn Arg Glu Trp Tyr Thr Gly Arg Val Thr Ala
      740      745      750
Val Glu Val Gly Lys His Val Val Arg Trp Lys Val Lys Phe Asp Tyr
      755      760      765
Val Pro Thr Asp Thr Thr Pro Arg Asp Arg Trp Val Glu Lys Gly Ser
      770      775      780
Glu Asp Val Arg Leu Met Lys Pro Pro Ser Pro Glu His Gln Ser Leu
785      790      795      800
Asp Thr Gln Gln Glu Gly Gly Glu Glu Glu Val Gly Pro Val Ala Gln
      805      810      815
Gln Ala Ile Ala Val Ala Glu Pro Ser Thr Ser Glu Cys Leu Arg Ile
      820      825      830
Glu Pro Asp Thr Thr Ala Leu Ser Thr Asn His Glu Thr Ile Asp Leu
      835      840      845
Leu Val Gln Ile Leu Arg Asn Cys Leu Arg Tyr Phe Leu Pro Pro Ser
      850      855      860
Phe Pro Ile Ser Lys Lys Gln Leu Ser Ala Met Asn Ser Asp Glu Leu
865      870      875      880
Ile Ser Phe Pro Leu Lys Glu Tyr Phe Lys Gln Tyr Glu Val Gly Leu
      885      890      895
Gln Asn Leu Cys Asn Ser Tyr Gln Ser Arg Ala Asp Ser Arg Ala Lys
      900      905      910
Ala Ser Glu Glu Ser Leu Arg Thr Ser Glu Arg Lys Leu Arg Glu Thr
      915      920      925
Glu Glu Lys Leu Gln Lys Leu Arg Thr Asn Ile Val Ala Leu Leu Gln
      930      935      940
Lys Val Gln Glu Asp Ile Asp Ile Asn Thr Asp Asp Glu Leu Asp Ala
      945      950      955      960
Tyr Ile Glu Asp Leu Ile Thr Lys Gly Asp
      965      970

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<210> 3379  
 <211> 898  
 <212> DNA  
 <213> Homo sapiens

<400> 3379

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 120  
 cccaaccct gggagctccg agtgtcagaa gatgcgttat tgggctcaga gattgcacag  
 180  
 gtaacagga atgatgtgga ctcaggaccc gtgctgtggt atgtgctaag cccatctggg  
 240  
 cccaggatc ccttcagtgt tggccgctat ggaggccgtg tctccctcac ggggcccctg  
 300  
 gactttgagc agtgtgaccg ctaccagctg cagctgctgg cacatgatgg gcctcatgag  
 360  
 ggccgtgcan acctcacagt gcttgtggag gatgtcaatg acaatgcacc tgccttctca  
 420  
 cagagcctct accaggtaat gctgcttgag cacacacccc caggcagtgc cattctctcc  
 480  
 gtctctgcca ctgacggga ctcagggtgcc aacggtcaca ttctctacca cctggcttcc  
 540  
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 600  
 ttggccttgg gccatgacgg gtcaggagca gtggatgtgg tgctggaagc acgagaccac  
 660  
 ggggctccag tccgggcagc acgagccaca gtgaacgtgc agtgcggga ccagaacgac  
 720  
 cagccccga gcttcacatt gttccactac cgtgtggctg tgactgaaga cctgccccct  
 780  
 ggctccactc tgctaacct ggaggctaca gatgctgatg gaagccgcag ccatgccgct  
 840  
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 898

&lt;210&gt; 3380

&lt;211&gt; 299

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3380

Xaa Ile Trp Ala Glu Thr Arg Leu Val Leu Met Ala Thr Asp Arg Gly  
 1 5 10 15  
 Ser Pro Ala Leu Val Gly Ser Ala Thr Leu Thr Val Met Val Ile Asp  
 20 25 30  
 Thr Asn Gly Asn Arg Pro Thr Ile Pro Gln Pro Trp Glu Leu Arg Val  
 35 40 45  
 Ser Glu Asp Ala Leu Leu Gly Ser Glu Ile Ala Gln Val Thr Gly Asn  
 50 55 60  
 Asp Val Asp Ser Gly Pro Val Leu Trp Tyr Val Leu Ser Pro Ser Gly  
 65 70 75 80  
 Pro Gln Asp Pro Phe Ser Val Gly Arg Tyr Gly Gly Arg Val Ser Leu  
 85 90 95  
 Thr Gly Pro Leu Asp Phe Glu Gln Cys Asp Arg Tyr Gln Leu Gln Leu  
 100 105 110  
 Leu Ala His Asp Gly Pro His Glu Gly Arg Ala Xaa Leu Thr Val Leu  
 115 120 125  
 Val Glu Asp Val Asn Asp Asn Ala Pro Ala Phe Ser Gln Ser Leu Tyr

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      130              135              140
Gln Val Met Leu Leu Glu His Thr Pro Pro Gly Ser Ala Ile Leu Ser
145              150              155              160
Val Ser Ala Thr Asp Arg Asp Ser Gly Ala Asn Gly His Ile Ser Tyr
      165              170              175
His Leu Ala Ser Pro Ala Asp Gly Phe Ser Val Asp Pro Asn Asn Gly
      180              185              190
Thr Leu Phe Thr Ile Val Gly Thr Leu Ala Leu Gly His Asp Gly Ser
      195              200              205
Gly Ala Val Asp Val Val Leu Glu Ala Arg Asp His Gly Ala Pro Val
      210              215              220
Arg Ala Ala Arg Ala Thr Val Asn Val Gln Leu Arg Asp Gln Asn Asp
225              230              235              240
His Ala Pro Ser Phe Thr Leu Phe His Tyr Arg Val Ala Val Thr Glu
      245              250              255
Asp Leu Pro Pro Gly Ser Thr Leu Leu Thr Leu Glu Ala Thr Asp Ala
      260              265              270
Asp Gly Ser Arg Ser His Ala Ala Val Asp Tyr Ser Ile Ile Ser Gly
      275              280              285
Asn Trp Gly Arg Val Phe Gln Leu Glu Pro Arg
      290              295

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<210> 3381
<211> 1379
<212> DNA
<213> Homo sapiens

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<400> 3381
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gagccgctgg aagggacaga acagacacta gatgcggagg aggagcagga ggaatccgaa
120
gaagcggcct gtggcagcaa gaaacgggta gtgccaggta ttgtgtacct gggccatata
180
ccgccgcgct tccggccctt gcacgtccgc aacctttctca gcgcctatgg cgaggtcgga
240
cgctctttct ttcaggctga ggaccgggtc gtgagacgca agaagaaggc agcagcagct
300
gccggaggga aaaagcggtc ctacaccaag gactacaccg agggatgggt ggagttccgt
360
gacaagcgca tagccaagcg cgtggcggcc agtctacaca acacgcctat gggtgcccgc
420
aggcgcagcc ctttcctgta tgatcttttg aacctcaagt acttgccagg ttccacctgg
480
tcccacctca gcgagcacct cgcctttgag cgccagggtc gcaggcagcg cttgagagcg
540
gagggtgttc aagccaagcg tgagaccgac ttctatcttc aaagtgtgga acggggacaa
600
cgctttcttg cgccgatgg ggaccctgct cgcccagatg gctcctggac atttgcccag
660
cgctctactg agcaggaact gagggcccggt aaagcagcac ggccaggggg acgtgaacgg
720
gctcgctcgg caactgccca ggacaaggcc cgctccaaca aagggtctct ggccaggatc
780

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ttggagcccc cgccaccctc agagagcatg gagggacctt ccttgtcag ggactcctga  
 840  
 gggcctgggt ggcccttcc atttcttggc cctgtcttgc ttctgtcta cctcatacta  
 900  
 gaatgatcgt gactaccgg gcagacattt tactgtgtt ctcagaccaa gtgtctactg  
 960  
 atggcccaaa catggagttt tgggggttc cactgtcccc actccgaact cctgtatgtg  
 1020  
 cctggctgag tcacctaat catactgtca tactagcata attatgacta ttgcatatgc  
 1080  
 ttgtttgtt tgactcttgg ctgcctacgt ctgtagggtc cctgaaaaat cccacttcct  
 1140  
 gccccagaa agggccttta ttccaacta ggaggataat gcctagtcca ggcaatcttt  
 1200  
 ctctgtttag cagtcacagg tgagggtggt attagcatct tttttatgta gaaaaaattg  
 1260  
 agttaatggg gtggactggg ttgggaagaa atacatttcc taatgtatt atagaaaaata  
 1320  
 aaaatatttt tatgtgaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1379

<210> 3382

<211> 279

<212> PRT

<213> Homo sapiens

<400> 3382

Xaa Pro Leu Val Ser Val Asn Met Glu Ala Glu Glu Ser Glu Lys Ala  
 1 5 10 15  
 Ala Thr Glu Gln Glu Pro Leu Glu Gly Thr Glu Gln Thr Leu Asp Ala  
 20 25 30  
 Glu Glu Glu Gln Glu Glu Ser Glu Glu Ala Ala Cys Gly Ser Lys Lys  
 35 40 45  
 Arg Val Val Pro Gly Ile Val Tyr Leu Gly His Ile Pro Pro Arg Phe  
 50 55 60  
 Arg Pro Leu His Val Arg Asn Leu Leu Ser Ala Tyr Gly Glu Val Gly  
 65 70 75 80  
 Arg Val Phe Phe Gln Ala Glu Asp Arg Phe Val Arg Arg Lys Lys Lys  
 85 90 95  
 Ala Ala Ala Ala Ala Gly Gly Lys Lys Arg Ser Tyr Thr Lys Asp Tyr  
 100 105 110  
 Thr Glu Gly Trp Val Glu Phe Arg Asp Lys Arg Ile Ala Lys Arg Val  
 115 120 125  
 Ala Ala Ser Leu His Asn Thr Pro Met Gly Ala Arg Arg Arg Ser Pro  
 130 135 140  
 Phe Arg Tyr Asp Leu Trp Asn Leu Lys Tyr Leu His Arg Phe Thr Trp  
 145 150 155 160  
 Ser His Leu Ser Glu His Leu Ala Phe Glu Arg Gln Val Arg Arg Gln  
 165 170 175  
 Arg Leu Arg Ala Glu Val Ala Gln Ala Lys Arg Glu Thr Asp Phe Tyr  
 180 185 190  
 Leu Gln Ser Val Glu Arg Gly Gln Arg Phe Leu Ala Ala Asp Gly Asp  
 195 200 205  
 Pro Ala Arg Pro Asp Gly Ser Trp Thr Phe Ala Gln Arg Pro Thr Glu

```

      210      215      220
Gln Glu Leu Arg Ala Arg Lys Ala Ala Arg Pro Gly Gly Arg Glu Arg
225      230      235      240
Ala Arg Leu Ala Thr Ala Gln Asp Lys Ala Arg Ser Asn Lys Gly Leu
      245      250      255
Leu Ala Arg Ile Phe Gly Ala Pro Pro Pro Ser Glu Ser Met Glu Gly
      260      265      270
Pro Ser Leu Val Arg Asp Ser
      275

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<210> 3383  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

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<400> 3383
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60
gtgttgcttg cacacaaatt ttgtagctgg agtgagtatt gttgttattt gtgttatagg
120
aaatgctcac ttcttaacct cttttgtcct ggagcataga attactgcaa atgctcaccc
180
ctggggagctg tctgtccccc gatctccac acaaacactc cagcatgaaa gagcgagact
240
caatctcaaa aaaaaaaagt ttcgggcacc tgaacaggaa ctggtttcca tcatcaactc
300
agaaagccc
309

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<210> 3384  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

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<400> 3384
Met Leu Ala His His Gly Ser Arg Glu Lys Cys Gln Cys Cys Leu His
1      5      10      15
Thr Asn Phe Val Ala Gly Val Ser Ile Val Val Ile Cys Val Ile Gly
      20      25      30
Asn Ala His Phe Leu Thr Ser Phe Val Leu Glu His Arg Ile Thr Ala
      35      40      45
Asn Ala His Pro Trp Glu Leu Ser Cys Pro Arg Ser Pro Thr Gln Thr
      50      55      60
Leu Gln His Glu Arg Ala Arg Leu Asn Leu Lys Lys Lys Lys Phe Arg
      65      70      75      80
Ala Pro Glu Gln Glu Leu Val Ser Ile Ile Asn Ser Glu Ser
      85      90

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<210> 3385  
 <211> 720  
 <212> DNA  
 <213> Homo sapiens

<400> 3385

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 120  
 gtgaaaacag tgacgggtgcg ggggtgggga gcactgcggt ccactttctc agccccccac  
 180  
 tatcctggaa gcttcagggt gggcccgagg cagcctccag cttcagcgac caccctgtt  
 240  
 cctcttgcca ggttctttgt gaacttcccc tcggccaagc agtacttcag ccagttcaag  
 300  
 cacatggagg atccccgga gatggagcgg aycccccagc tgcggaagca cgctgccga  
 360  
 gtcattgggg ccctcaacac tgcgtggag aacctgcatg accccgacaa ggtgtcctct  
 420  
 gtgctcggcc ttgtggggaa agcccacgcc ctcaagcaca aggtggaacc ggtgtacttc  
 480  
 aagatcctct ctggggtcat tctggaggtg gtcgccgagg aatttgccag tgacttccca  
 540  
 cctgagacgc agagagcctg ggccaagctg cgtggcctca tctacagcca cgtgaccgct  
 600  
 gcctacaagg aagtggtgctg ggtgcagcag gtccccaacg ccaccacccc accggccaca  
 660  
 ctgcccctct cgggggcgta ggaccctccc ctccaccccc ctccctggca gcacctcgag  
 720

<210> 3386

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3386

Met	Val	Val	Lys	Thr	Val	Thr	Val	Arg	Gly	Trp	Gly	Ala	Leu	Arg	Ser
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Thr	Ser	Ser	Ala	Pro	His	Tyr	Pro	Gly	Ser	Phe	Arg	Val	Gly	Pro	Arg
			20					25					30		
Gln	Pro	Pro	Ala	Ser	Ala	Thr	Thr	Pro	Val	Pro	Leu	Ala	Arg	Phe	Phe
			35				40				45				
Val	Asn	Phe	Pro	Ser	Ala	Lys	Gln	Tyr	Phe	Ser	Gln	Phe	Lys	His	Met
	50					55				60					
Glu	Asp	Pro	Leu	Glu	Met	Glu	Arg	Ser	Pro	Gln	Leu	Arg	Lys	His	Ala
	65				70				75					80	
Cys	Arg	Val	Met	Gly	Ala	Leu	Asn	Thr	Val	Val	Glu	Asn	Leu	His	Asp
			85				90						95		
Pro	Asp	Lys	Val	Ser	Ser	Val	Leu	Ala	Leu	Val	Gly	Lys	Ala	His	Ala
			100				105						110		
Leu	Lys	His	Lys	Val	Glu	Pro	Val	Tyr	Phe	Lys	Ile	Leu	Ser	Gly	Val
	115					120						125			
Ile	Leu	Glu	Val	Val	Ala	Glu	Glu	Phe	Ala	Ser	Asp	Phe	Pro	Pro	Glu
	130					135					140				
Thr	Gln	Arg	Ala	Trp	Ala	Lys	Leu	Arg	Gly	Leu	Ile	Tyr	Ser	His	Val
	145				150				155					160	
Thr	Ala	Ala	Tyr	Lys	Glu	Val	Gly	Trp	Val	Gln	Gln	Val	Pro	Asn	Ala
			165				170							175	
Thr	Thr	Pro	Pro	Ala	Thr	Leu	Pro	Ser	Ser	Gly	Pro				

180

185

<210> 3387  
<211> 3299  
<212> DNA  
<213> Homo sapiens

<400> 3387  
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120  
ggaagaggcc tcttattagg gctctggtgg cggcggcggc ggacccttgg ggtctggacg  
180  
caacggcggc gggagcatga acgccccctc agccttcgag tcgttcttgc tcttcgaggg  
240  
cgagaagaag taagtgcgcg cggctgcggc gggccgagga tcaccattaa caaggacacc  
300  
aaggtaacca atgcctgttt attcaccatc aacaaagaag accacacact gggaaacatc  
360  
attaaatcac aactcctaaa agaccgcgaa gtgctatttg ctggctacaa agtccccac  
420  
cccttggagc acaagatcat catccgagtg cagaccacgc cggactacag cccccaggaa  
480  
gcctttacca acgcatcac cgacctcgc agtgagctgt cctgctgga ggagcgcttt  
540  
cgggtggcca taaaagacaa gcaggaagga attgagtagg ggccagaggg ggctctgctc  
600  
ggcctgtgag ccccgcttct acctgtgcct gacctccgc tccaggtacc acaccgagga  
660  
gagcggccgg tccagccat ggcccgcctt gtggccaccc ctcaccctga caccgacgtg  
720  
ttggccaccc ctcaccctga caccgacgtg tcctgtacat agattaggtt ttatattcct  
780  
aataaagtat agcgggaagag acctggatgt ggacttgagc agcggtgact tcgcaagcaa  
840  
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900  
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960  
ccggagagaa gtgtgcaaac ccatgagctc ccaagagtct ctgctctaga agcctcaact  
1020  
cctgggcctg cctgtcagtc aaagcaggaa cacttcttcc tgcataactc gaaacacctt  
1080  
tccacaggct tcttgtccac agtagagttt aataaaaata ttcactgaaa gacccccccc  
1140  
acccccatcg gcccaaagct gaataagtta gttagctgtg tccctggctc ttgctgatgg  
1200  
tgtgaggcta catcctcccc cagatggcta cgatgttgga gtccgtcagg gcggtgaggt  
1260  
agggtgaagga ggcatggcc accactgtgt tcaccatggt cttggtcacc acctggccaa  
1320  
gggcccaggg ctggggccac ttcaggatct gtgtgggggc ctgcagggct gccggcagca  
1380

2565



ggggtggctg cttcaggatg ttgctgacgt cgtagagcca cacgttgccc tcctcatccc  
1440  
cacagagcac aatcccccta tcagggcagg cgctgagcga gaagtaggcc aactcgggtgg  
1500  
acgaccattg cagccgcgcc aggaccacca ctgccactgt ggactggctg ccccgsgccc  
1560  
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1620  
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1680  
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1740  
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1800  
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1860  
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1920  
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1980  
gggctcggat gaccccgag cagaagccgg cacgcacgtg cagcagccgg accaggcccc  
2040  
gtaggcctgc agccgccagc aactccagc gcttcttgtg gccagcctgt gtgaccacca  
2100  
tcagagcggc ccagccaca gaaaagaact cctcgccggg tgccttgtac ttgtggagca  
2160  
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2220  
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2280  
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2400  
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ccgccagtct ggccttgggc ttgtgggcag ctccagcttc tgggggcttc tctgggctgt  
2520  
tagccttttg cacttgggtc ctactggcgg ccaccagctc ctccagatc atccgcaccc  
2580  
gccactgggt gaactcgctg agggactcgg gcccgtagcg gacatccctg acagccgact  
2640  
tcacaaaagtc cgccttgggc ttctcagcct cctcttcagg acccagtgtg gccatgaact  
2700  
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2760  
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2820  
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2880  
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2940  
ggtgggacag gccaggttg tccggcagcg tctccaggtg gttgttagac aggtcaagct  
3000

cctgcagctg cgtcaggcgg cacaggagtt tgggggtccag gtgctcggaa agcagctcca  
 3060  
 atcctgacag gtccagactc cggatcttcc ccagccggtc gctcttgggg cgcccgcgct  
 3120  
 gcattagcag ccgcgccgag agggggccca tggcgaggag gcgcagcccg cgctgacca  
 3180  
 gtcgggccacc ccggcgtgtg gcgtcgccct gcgtctcttg gagcccgga ctggcgctccg  
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 3299

<210> 3388  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

<400> 3388  
 Ser Gly Arg Gly Leu Leu Leu Gly Leu Trp Trp Arg Arg Arg Arg Thr  
 1 5 10 15  
 Leu Gly Val Trp Thr Gln Arg Arg Arg Glu His Glu Arg Pro Ser Ser  
 20 25 30  
 Leu Arg Val Val Leu Ala Leu Arg Gly Arg Glu Val Ser Asp Ala  
 35 40 45  
 Gly Cys Gly Gly Pro Arg Ile Thr Ile Asn Lys Asp Thr Lys Val Pro  
 50 55 60  
 Asn Ala Cys Leu Phe Thr Ile Asn Lys Glu Asp His Thr Leu Gly Asn  
 65 70 75 80  
 Ile Ile Lys Ser Gln Leu Leu Lys Asp Pro Gln Val Leu Phe Ala Gly  
 85 90 95  
 Tyr Lys Val Pro His Pro Leu Glu His Lys Ile Ile Ile Arg Val Gln  
 100 105 110  
 Thr Thr Pro Asp Tyr Ser Pro Gln Glu Ala Phe Thr Asn Ala Ile Thr  
 115 120 125  
 Asp Leu Ile Ser Glu Leu Ser Leu Leu Glu Glu Arg Phe Arg Val Ala  
 130 135 140  
 Ile Lys Asp Lys Gln Glu Gly Ile Glu  
 145 150

<210> 3389  
 <211> 308  
 <212> DNA  
 <213> Homo sapiens

<400> 3389  
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 120  
 gacgggcctc cgtttgtgga gccgctgctt aacttcactt ggttcctgct gctggctgtg  
 180  
 gacggggaac cttctgacca gcctcatggg ctccctcagag caggaggatg gggaggagag  
 240  
 ccccagcgac ggcagcccca tcgagctgga ctgaactggc caggccacgt ggagacacca  
 300

cggtcgac  
308

<210> 3390  
<211> 102  
<212> PRT  
<213> Homo sapiens

<400> 3390  
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1 5 10 15  
Leu Cys Leu Lys Asn Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr  
20 25 30  
Thr Gln Lys His Pro Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro  
35 40 45  
Leu Leu Asn Phe Ile Trp Phe Leu Leu Leu Ala Val Asp Gly Glu Pro  
50 55 60  
Ser Asp Gln Pro His Gly Leu Leu Arg Ala Gly Gly Trp Gly Gly Glu  
65 70 75 80  
Pro Gln Arg Arg Gln Pro His Arg Ala Gly Leu Asn Trp Pro Gly His  
85 90 95  
Val Glu Thr Pro Arg Ser  
100

<210> 3391  
<211> 1295  
<212> DNA  
<213> Homo sapiens

<400> 3391  
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gaagccctaa gtgacagttc agagcgtctt ttctcctttg gcgtcatcgc agatgttcaa  
120  
tttgagact tagaagatgg ctttaatttc caaggaacca ggcggcgata ctacagacat  
180  
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<210> 3392

<211> 355

<212> PRT

<213> Homo sapiens

<400> 3392

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Asn	Ala	Ser	Lys	Lys	Ser	Leu	Glu	Leu	Val	Met	Asp	Met	Phe	Lys	Arg
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Leu	Lys	Val	Pro	Val	His	His	Thr	Trp	Gly	Asn	His	Glu	Phe	Tyr	Asn
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Phe	Ser	Arg	Glu	Tyr	Leu	Thr	His	Ser	Lys	Leu	Asn	Thr	Lys	Phe	Leu
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Asp	Ala	Tyr	Asp	Leu	Ser	Val	Leu	Gly	Val	Asp	Gln	Ser	Ser	Pro	Lys
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Leu	Asn	Ser	Pro	Gln	Gly	Leu	Ser	Glu	Pro	Gln	Phe	Val	Gln	Phe	Asn

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Phe Ser Asp Thr Asn Gln Glu Lys Val Val Ile Val Ser His Leu Pro
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Ile Tyr Pro Asp Ala Ser Asp Asn Val Cys Leu Ala Trp Asn Tyr Arg
      260      265      270
Asp Ala Leu Ala Val Ile Trp Ser His Glu Cys Val Val Cys Phe Phe
      275      280      285
Ala Gly His Thr His Asp Gly Gly Tyr Ser Glu Asp Pro Phe Gly Val
      290      295      300
Tyr His Val Asn Leu Glu Gly Val Ile Glu Thr Ala Pro Asp Ser Gln
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Ala Phe Gly Thr Val His Val Tyr Pro Asp Lys Met Met Leu Lys Gly
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Phe His Cys
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<210> 3393  
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 <212> DNA  
 <213> Homo sapiens

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<210> 3394  
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 <212> PRT  
 <213> Homo sapiens

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Cys Arg Leu Gly Met Gly Pro Gly Xaa Val Thr Pro Ser Ser Phe Val

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Thr	Gly	Ser	Ser	Ser	Leu	Trp	Asn	Leu	Met	Gly	Asn	Xaa	Met	Val	Met
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Thr	Gln	Tyr	Ile	Arg	Leu	Thr	Pro	Asp	Met	Gln	Ser	Lys	Gln	Gly	Ala
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Leu	Trp	Asn	Arg	Val	Pro	Cys	Phe	Leu	Arg	Asp	Trp	Glu	Leu	Gln	Val
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His	Phe	Lys	Ile	His	Gly	Gln	Gly	Lys	Lys	Asn	Leu	His	Gly	Asp	Gly
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Leu	Ala	Ile	Trp	Tyr	Thr	Lys	Asp	Arg	Met	Gln	Pro	Gly	Pro	Val	Phe
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Pro	Asn	Glu	Glu	Lys	Gln	Pro	Phe	Thr	Arg						
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&lt;211&gt; 807

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3395

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 Ala Trp Tyr Ser Glu Ser Glu Ile Thr Gln Gly Ala Arg Ser Arg Ser  
 65 70 75 80  
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 Thr Asn Cys Thr Thr Ser Ala Gly Arg Asn Val Gly Asn Gly Leu Asn  
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 Thr Leu Ser Asp Ser Ser Trp Arg His Ser Gln Val Pro Arg Ser Ser  
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 <212> DNA  
 <213> Homo sapiens

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<210> 3398  
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 <212> PRT  
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 Ala Ser Ala Ile Pro Ser Trp Leu Leu Asn Asp Pro Gly Val Glu Xaa  
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 Glu Val Met Gly Asp Ala Val Leu Glu Ala Ser His Asn Val Gln Gly  
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 Cys Gly Cys Ser Trp Val Ser His Ser Gly Arg Gly Val Gly Pro Glu  
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 Ala Glu Gly Ala Gly Ser Pro Gln Ser Leu Gly His Gly Ser Gly Gly  
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<210> 3399  
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 <212> DNA  
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 Thr Gln Ala Met Glu Gly Leu Leu His Tyr Ile Asn Pro Ala His Ala  
 1 5 10 15  
 Ile Ser Leu Leu Ser Ala Leu Asn Glu Glu Arg Leu Lys Gly Gln Leu  
 20 25 30  
 Cys Asp Val Leu Leu Ile Val Gly Asp Gln Lys Phe Arg Ala His Lys  
 35 40 45  
 Asn Val Leu Ala Ala Ser Ser Glu Tyr Phe Gln Ser Leu Phe Thr Asn  
 50 55 60  
 Lys Glu Asn Glu Ser Gln Thr Val Phe Gln Leu Asp Phe Cys Glu Pro  
 65 70 75 80  
 Asp Ala Phe Asp Asn Val Leu Asn Tyr Ile Tyr Ser Ser Ser Leu Phe  
 85 90 95  
 Val Glu Lys Ser Ser Leu Ala Ala Val Gln Glu Leu Gly Tyr Ser Leu  
 100 105 110  
 Gly Ile Ser Phe Leu Thr Asn Ile Val Ser Lys Thr Pro Gln Ala Pro  
 115 120 125  
 Phe Pro Thr Cys Pro Asn Arg Lys Lys Val Phe Val Glu Asp Asp Glu  
 130 135 140  
 Asn Ser Ser Gln Lys Arg Ser Val Ile Val Cys Gln Ser Arg Asn Glu  
 145 150 155 160  
 Ala Gln Gly Lys Thr Val Ser Gln Asn Gln Pro Asp Val Ser His Thr  
 165 170 175  
 Ser Arg Pro Ser Pro Ser Ile Ala Val Lys Ala Asn Thr Asn Lys Pro  
 180 185 190  
 His Val Pro Lys Pro Ile Glu Pro Leu His Asn Leu Ser Leu Thr Glu  
 195 200 205  
 Lys Ser Trp Pro Lys Asp Ser Ser Val Val Tyr Ala Lys Ser Leu Glu  
 210 215 220  
 His Ser Gly Ser Leu Asp Asp Pro Asn Arg Ile Ser Leu Val Lys Arg

```

225          230          235          240
Asn Ala Val Leu Pro Ser Lys Pro Leu Gln Asp Arg Glu Ala Met Asp
          245          250          255
Asp Lys Pro Gly Val Ser Gly Gln Leu Pro Lys Gly Lys Ala Leu Glu
          260          265          270
Leu Ala Leu Lys Arg Pro Arg Pro Pro Val Leu Ser Val Cys Ser Ser
          275          280          285
Ser Glu Thr Pro Tyr Leu Leu Lys Glu Thr Asn Lys Gly Asn Gly Gln
          290          295          300
Gly Glu Asp Arg Asn Leu Leu Tyr Tyr Ser Lys Leu Gly Leu Val Ile
305          310          315          320
Pro Ser Ser Gly Ser Gly Ser Gly Asn Gln Ser Ile Asp Arg Ser Gly
          325          330          335
Pro Leu Val Lys Ser Leu Leu Arg Arg Ser Leu Ser Met Asp Ser Gln
          340          345          350
Val Pro Val Tyr Ser Pro Ser Ile Asp Leu Lys Ser Ser Gln Gly Ser
          355          360          365
Ser Ser Val Ser Ser Asp Ala Pro Gly Asn Val Leu Cys Ala Leu Ser
          370          375          380
Gln Lys Ser Ser Leu Lys Asp Cys Ser Glu Lys Thr Ala Leu Asp Asp
385          390          395          400
Arg Pro Gln Val Leu Gln Pro His Arg Leu Arg Ser Phe Ser Ala Ser
          405          410          415
Gln Ser Thr Asp Arg Glu Gly Ala Ser Pro Val Thr Glu Val Arg Ile
          420          425          430
Lys Thr Glu Pro Ser Ser Pro Leu Ser Asp Pro Ser Asp Ile Ile Arg
          435          440          445
Val Thr Val Gly Asp Ala Ala Thr Thr Ala Ala Ser Ser Ser Ser
          450          455          460
Val Thr Arg Asp Leu Ser Leu Lys Thr Glu Asp Asp Gln Lys Asp Met
465          470          475          480
Ser Arg Leu Pro Ala Lys Arg Arg Phe Gln Ala Asp Arg Arg Leu Pro
          485          490          495
Phe Lys Lys Leu Lys Val Asn Glu His Gly Ser Pro Val Ser Glu Asp
          500          505          510
Asn Phe Glu Glu Gly Ser Ser Pro Thr Leu Leu Asp Ala Asp Phe Pro
          515          520          525
Asp Ser Asp Leu Asn Lys Asp Glu Phe Gly Glu Leu Glu Gly Thr Arg
          530          535          540
Pro Asn Lys Lys Phe Lys Cys Lys His Cys Leu Lys Ile Phe Arg Ser
545          550          555          560
Thr Ala Gly Leu His Arg His Val Asn Met Tyr His Asn Pro Glu Lys
          565          570          575
Pro Tyr Ala Cys Asp Ile Cys His Lys Arg Phe His Thr Asn Phe Lys
          580          585          590
Val Trp Thr His Cys Gln Thr Gln His Gly Ile Val Lys Asn Pro Ser
          595          600          605
Pro Ala Ser Ser Ser His Ala Val Leu Asp Glu Lys Phe Gln Arg Lys
          610          615          620
Leu Ile Asp Ile Val Arg Glu Arg Glu Ile Lys Lys Ala Leu Ile Ile
625          630          635          640
Lys Leu Arg Arg Gly Lys Pro Gly Phe Gln Gly Gln Ser Ser Ser Gln
          645          650          655
Ala Gln Gln Val Ile Lys Arg Asn Leu Arg Ser Arg Ala Lys Gly Ala

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        660                665                670
Tyr Ile Cys Thr Tyr Cys Gly Lys Ala Tyr Arg Phe Leu Ser Gln Phe
        675                680                685
Lys Gln His Ile Lys Met His Pro Gly Glu Lys Pro Leu Gly Val Asn
        690                695                700
Lys Val Ala Lys Pro Lys Glu His Ala Pro Leu Ala Ser Pro Val Glu
        705                710                715                720
Asn Lys Glu Val Tyr Gln Cys Arg Leu Cys Asn Ala Lys Leu Ser Ser
        725                730                735
Leu Leu Glu Gln Gly Ser His Glu Arg Leu Cys Arg Asn Ala Ala Val
        740                745                750
Cys Pro Tyr Cys Ser Leu Arg Phe Phe Ser Pro Glu Leu Lys Gln Glu
        755                760                765
His Glu Ser Lys Cys Glu Tyr Lys Lys Leu Thr Cys Leu Glu Cys Met
        770                775                780
Arg Thr Phe Lys Ser Ser Phe Ser Ile Trp Arg His Gln Val Glu Val
        785                790                795                800
His Asn Gln Asn Asn Met Ala Pro Thr Glu Asn Phe Ser Leu Pro Val
        805                810                815
Leu Asp His Asn Gly Asp Val Thr Gly Ser Ser Arg Pro Gln Ser Gln
        820                825                830
Pro Glu Pro Asn Lys Val Asn His Ile Val Thr Thr Lys Asp Asp Asn
        835                840                845
Val Phe Ser Asp Ser Ser Glu Gln Val Asn Phe Asp Ser Glu Asp Ser
        850                855                860
Ser Cys Leu Pro Glu Asp Leu Ser Leu Ser Lys Gln Leu Lys Ile Gln
        865                870                875                880
Val Lys Glu Glu Pro Val Glu Glu Ala Glu Glu Glu Ala Pro Glu Ala
        885                890                895
Ser Thr Ala Pro Lys Glu Ala Gly Pro Ser Lys Glu Ala Ser Leu Trp
        900                905                910
Pro Cys Glu Lys Cys Gly Lys Met Phe Thr Val His Lys Gln Leu Glu
        915                920                925
Arg His Gln Glu Leu Leu Cys Ser Val Lys Pro Phe Ile Cys His Val
        930                935                940
Cys Asn Lys Ala Phe Arg Thr Asn Phe Arg Leu Trp Ser His Phe Gln
        945                950                955                960
Ser His Met Ser Gln Ala Ser Glu Glu Ser Ala His Lys Glu Ser Glu
        965                970                975
Val Cys Pro Val Pro Thr Asn Ser Pro Ser Pro Pro Leu Pro Pro
        980                985                990
Pro Pro Pro Leu Pro Lys Ile Gln Pro Leu Glu Pro Asp Ser Pro Thr
        995                1000                1005
Gly Leu Ser Glu Asn Pro Thr Pro Ala Thr Glu Lys Leu Phe Val Pro
        1010                1015                1020
Gln Glu Ser Asp Thr Leu Phe Tyr His Ala Pro Pro Leu Ser Ala Ile
        1025                1030                1035                1040
Thr Phe Lys Arg Gln Phe Met Cys Lys Leu Cys His Arg Thr Phe Lys
        1045                1050                1055
Thr Ala Phe Ser Leu Trp Ser His Glu Gln Thr His Asn
        1060                1065

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&lt;210&gt; 3401

&lt;211&gt; 579

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3401

gttgaaaata aggaaaagga cagcaatatg ccacactttc aaactttgca agctattgtt  
 60  
 tctcacttcc aaaagtattt tgatgtgcct tctttaaatg gagtctatcc ccgaatgaat  
 120  
 gaagtttata ctaggcttgg agaaatgaac aatgctgtga gaaacctcca agaactctta  
 180  
 gaattagata gttcatcttc attgtgtgtg ctagtaagca ctgttggaat actctgtagg  
 240  
 ctgattaatg aagatgtgaa tgagcaggtt atgcaggtat taggacctga agacctccag  
 300  
 agcattatct acaaattgga agaacacgag gaatttttcc cagcatttca ggcatttact  
 360  
 aatgatctac ttgaaatctt agaaattgat gactctggat gccattgtac ctgcagtaaa  
 420  
 gaaattaaaa gtactttcat actgaaaaca aatcaaatca tttttactgt gtaaatgtta  
 480  
 ttcttaacat ttgtattttt gtaggattga tcttattttg agacaagggt tgtaaatgt  
 540  
 atttgctctc agaattcacc ccttcttag tattaggtc  
 579

&lt;210&gt; 3402

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3402

Met	Pro	His	Phe	Gln	Thr	Leu	Gln	Ala	Ile	Val	Ser	His	Phe	Gln	Lys
1				5				10						15	
Leu	Phe	Asp	Val	Pro	Ser	Leu	Asn	Gly	Val	Tyr	Pro	Arg	Met	Asn	Glu
			20					25					30		
Val	Tyr	Thr	Arg	Leu	Gly	Glu	Met	Asn	Asn	Ala	Val	Arg	Asn	Leu	Gln
			35				40					45			
Glu	Leu	Leu	Glu	Leu	Asp	Ser	Ser	Ser	Ser	Leu	Cys	Val	Leu	Val	Ser
			50			55					60				
Thr	Val	Gly	Lys	Leu	Cys	Arg	Leu	Ile	Asn	Glu	Asp	Val	Asn	Glu	Gln
			65			70				75				80	
Val	Met	Gln	Val	Leu	Gly	Pro	Glu	Asp	Leu	Gln	Ser	Ile	Ile	Tyr	Lys
			85				90						95		
Leu	Glu	Glu	His	Glu	Glu	Phe	Phe	Pro	Ala	Phe	Gln	Ala	Phe	Thr	Asn
			100				105					110			
Asp	Leu	Leu	Glu	Ile	Leu	Glu	Ile	Asp	Asp	Ser	Gly	Cys	His	Cys	Thr
			115			120					125				
Cys	Ser	Lys	Glu	Ile	Lys	Ser	Thr	Phe	Ile	Leu	Lys	Thr	Asn	Gln	Ile
			130			135					140				
Ile	Phe	Thr	Val												
145															

&lt;210&gt; 3403

&lt;211&gt; 1696

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3403

aaaaacatca gtgtctgtgg gtagttagaa tcttcagttc ctgtgagcgt cggcgtcttc  
60  
tgggcctgtg gagtttcttg gacagggggc gcggggctcc aggacggcgc ccttagcgac  
120  
accatggccc gaaatgcaga aaaggccatg acggccttag caagatttcg ccaggctcag  
180  
ctggaagagg gaaaagtga ggaacgaaga ccctttcttg cctcagaatg tactgaactg  
240  
cctaaagctg agaagtggag acgacagatc attggagaga tctctaaaaa agtggctcag  
300  
attcagaatg ctggtttagg tgaatttcga attcgtgacc tgaatgatga aattaacaag  
360  
ctgctaaggg agaaaggaca ctggggaggtc cggataaagg agctgggagg tcctgattat  
420  
ggaaaagtgt gccctaaaaa gctggatcat gaaggaaaag aagccccagg aaaccgaggt  
480  
tacaagtact ttggagcagc aaaagatttg cctggtgtta gagagctgtt tgaaaaanga  
540  
acctcttctt cctcccagnn aaagacacgt gctgagctca tgaaggcaat cgattttgag  
600  
tactatgggt acctagatga agatgatggt gttattgtgc ctttggaaaca ggaatatgaa  
660  
aagaaactca gagccgaggt agtggaaaag tggaaagcag agagagaggg tcggtctggca  
720  
agaggagaaa aggaagagga ggaggaagag gaggaagaga tcaacatcta tgcagtcacc  
780  
gaggaggagt cggacgagga aggcagccag gagaaggag gggacgacag ccagcagaag  
840  
ttcattgttc acgtccctgt tccctcgag caagagattg aggaggcact ggtgcgaagg  
900  
aagaaaatgg aactcctcca gaagtatgca agcgagaccc tgcaggccca aagtgaaaga  
960  
gccagaaggc tcctggggta ttaggacca gctggggctc tccttgaggt tcttccatcc  
1020  
cccagtggta cctcaggacc cagggtctga gacacaggct ggtgctgcaa gggctcctgc  
1080  
cccattctca gccttctctt cctctccttg tctcatgttg accggagggt aggggtctgt  
1140  
ccctggctct cctggtaggt ttgtacaca tatcttgcta ctgtgtggat ccatttatct  
1200  
ttattgtgga gtgtatacaa cagggtgcga actggctgcc tgtgtcttat ttgacttgc  
1260  
actgccattt tgaggggaga agaatacaatt agtggcaaac atttaaaaaa gcaatttttt  
1320  
gcagaccaaa gtataatttt aaaaaatgca aattttctaa aagacacatc tcttgaaaaa  
1380  
tgagatgatg tggccaggcg cagtggctca cgcctgtaac ccagcactt tgggaggcgg  
1440  
aggcgggagg gtcacgaggt caagagatgg agaccatcct ggccaacatg gtgaaacccc  
1500



atgtctacta aaaatacaaa aaaattagct gggcgtactg gcatgcacct gtagtcccag  
 1560  
 ctgctttggg aggctgaggc aggagaatca cttgaacccc cggaggtgga ggtttgagtg  
 1620  
 agcccagatc gtggccattg actccaagcc ttgggacaag tgggaacctc ttccccccaa  
 1680  
 aaaaaaaaaa aagttt  
 1696

<210> 3404

<211> 286

<212> PRT

<213> Homo sapiens

<400> 3404

Met	Ala	Arg	Asn	Ala	Glu	Lys	Ala	Met	Thr	Ala	Leu	Ala	Arg	Phe	Arg
1			5						10					15	
Gln	Ala	Gln	Leu	Glu	Glu	Gly	Lys	Val	Lys	Glu	Arg	Arg	Pro	Phe	Leu
		20					25						30		
Ala	Ser	Glu	Cys	Thr	Glu	Leu	Pro	Lys	Ala	Glu	Lys	Trp	Arg	Arg	Gln
		35					40					45			
Ile	Ile	Gly	Glu	Ile	Ser	Lys	Lys	Val	Ala	Gln	Ile	Gln	Asn	Ala	Gly
	50					55					60				
Leu	Gly	Glu	Phe	Arg	Ile	Arg	Asp	Leu	Asn	Asp	Glu	Ile	Asn	Lys	Leu
	65			70			75							80	
Leu	Arg	Glu	Lys	Gly	His	Trp	Glu	Val	Arg	Ile	Lys	Glu	Leu	Gly	Gly
			85				90						95		
Pro	Asp	Tyr	Gly	Lys	Val	Gly	Pro	Lys	Met	Leu	Asp	His	Glu	Gly	Lys
	100						105						110		
Glu	Val	Pro	Gly	Asn	Arg	Gly	Tyr	Lys	Tyr	Phe	Gly	Ala	Ala	Lys	Asp
	115					120						125			
Leu	Pro	Gly	Val	Arg	Glu	Leu	Phe	Glu	Lys	Xaa	Thr	Ser	Ser	Ser	Ser
	130				135						140				
Gln	Xaa	Lys	Thr	Arg	Ala	Glu	Leu	Met	Lys	Ala	Ile	Asp	Phe	Glu	Tyr
	145				150					155				160	
Tyr	Gly	Tyr	Leu	Asp	Glu	Asp	Asp	Gly	Val	Ile	Val	Pro	Leu	Glu	Gln
			165				170						175		
Glu	Tyr	Glu	Lys	Lys	Leu	Arg	Ala	Glu	Leu	Val	Glu	Lys	Trp	Lys	Ala
	180						185						190		
Glu	Arg	Glu	Ala	Arg	Leu	Ala	Arg	Gly	Glu	Lys	Glu	Glu	Glu	Glu	Glu
	195					200						205			
Glu	Glu	Glu	Glu	Ile	Asn	Ile	Tyr	Ala	Val	Thr	Glu	Glu	Glu	Ser	Asp
	210				215						220				
Glu	Glu	Gly	Ser	Gln	Glu	Lys	Gly	Gly	Asp	Asp	Ser	Gln	Gln	Lys	Phe
	225				230				235					240	
Ile	Ala	His	Val	Pro	Val	Pro	Ser	Gln	Gln	Glu	Ile	Glu	Glu	Ala	Leu
			245					250						255	
Val	Arg	Arg	Lys	Lys	Met	Glu	Leu	Leu	Gln	Lys	Tyr	Ala	Ser	Glu	Thr
			260				265						270		
Leu	Gln	Ala	Gln	Ser	Glu	Glu	Ala	Arg	Arg	Leu	Leu	Gly	Tyr		
	275						280					285			

<210> 3405

<211> 402

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3405

```

gggtgggagg ccccttgca ggagaggctg gcgttctatc agacagcaat tgaagcgcc
60
agacaagctg gagacagcgc caagatgcgg cgctacgacg gggggcttaa aacctggaa
120
aacctgctcg cctccatccg taagggaat gccattgacg aagcggacat cccgccgcca
180
gtggccatag gaaaaggccc ggcgtccacg cctacctaca gccctgcacc caccagccg
240
gccccatagaa tcgcgtcagc ccagagccc agggtcaccc tggagggacc ttctgccacc
300
gccccagcct catctccagg cttggctaag cccagatgc cccagggtcc ctgcagccct
360
ccctctggcc cagttgcaga gccgccagcg cgactacaag ct
402

```

&lt;210&gt; 3406

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3406

```

Gly Trp Glu Ala Pro Leu Gln Glu Arg Leu Ala Phe Tyr Gln Thr Ala
1           5           10          15
Ile Glu Ser Ala Arg Gln Ala Gly Asp Ser Ala Lys Met Arg Arg Tyr
20          25          30
Asp Arg Gly Leu Lys Thr Leu Glu Asn Leu Leu Ala Ser Ile Arg Lys
35          40          45
Gly Asn Ala Ile Asp Glu Ala Asp Ile Pro Pro Pro Val Ala Ile Gly
50          55          60
Lys Gly Pro Ala Ser Thr Pro Thr Tyr Ser Pro Ala Pro Thr Gln Pro
65          70          75          80
Ala Pro Arg Ile Ala Ser Ala Pro Glu Pro Arg Val Thr Leu Glu Gly
85          90          95
Pro Ser Ala Thr Ala Pro Ala Ser Ser Pro Gly Leu Ala Lys Pro Gln
100         105         110
Met Pro Pro Gly Pro Cys Ser Pro Pro Ser Gly Pro Val Ala Glu Pro
115         120         125
Pro Ala Arg Leu Gln Ala
130

```

&lt;210&gt; 3407

&lt;211&gt; 535

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3407

```

ggaatgaggg gggatgggga agaaccccc aggacagcac caagcaggtc tgcggggacc
60
tttcccgacc accatgcctt ctccggcggtg aggcaggtgg cggcaccgac aggcccgggg
120

```

gggacctttc ccggacaccc aacctcctcg gtggcgaggc aggtggcggc accgacaggc  
 180  
 ccggcgggga cctttcccg ancacctggc ctccttgga agcagggtggc ggcaccaaca  
 240  
 ggcccggggg ggacctttcc cggacacctg gcctcctcgg cgaggcaggc ggcagaactg  
 300  
 gttccacgtc tgatcttctc tagacaaacc tgccttcaga ggaattgtg ttcaactgga  
 360  
 gaaactggaa aatgtactag atattggctg atatgaagga tatatgtttt aagtatgata  
 420  
 attcgatttt ggctctgtag ggaaaggctc ttattttaaa aagatgtgca ctagagaaaa  
 480  
 aggaacagc atgtagcaaa tacatccacg gatgtcctcc tggtttaaaa aaaaa  
 535

<210> 3408  
 <211> 131  
 <212> PRT  
 <213> Homo sapiens

<400> 3408  
 Gly Met Arg Gly Asp Gly Glu Glu Pro Pro Arg Thr Ala Pro Ser Arg  
 1 5 10 15  
 Ser Ala Gly Thr Phe Pro Gly His His Ala Phe Ser Ala Val Arg Gln  
 20 25 30  
 Val Ala Ala Pro Thr Gly Pro Gly Gly Thr Phe Pro Gly His Pro Thr  
 35 40 45  
 Ser Ser Val Ala Arg Gln Val Ala Ala Pro Thr Gly Pro Ala Gly Thr  
 50 55 60  
 Phe Pro Gly Xaa Pro Gly Leu Leu Gly Lys Gln Val Ala Ala Pro Thr  
 65 70 75 80  
 Gly Pro Gly Gly Thr Phe Pro Gly His Leu Ala Ser Ser Ala Arg Gln  
 85 90 95  
 Val Ala Glu Leu Val Pro Arg Leu Ile Phe Leu Arg Gln Thr Cys Leu  
 100 105 110  
 Gln Arg Lys Leu Cys Ser Thr Gly Glu Thr Gly Lys Cys Thr Arg Tyr  
 115 120 125  
 Trp Leu Ile  
 130

<210> 3409  
 <211> 959  
 <212> DNA  
 <213> Homo sapiens

<400> 3409  
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 60  
 acgtttgctt tccaagtgca aaactacaga cacgcgcgcg cacacacgca agcacacgcg  
 120  
 gagagagagg aaccttgccg gtccgaggca gctctgcgcg tcccctcctg cgcttagcat  
 180  
 cctcggccca gcgcggcccg caccgccatg gaggtgctgg agagcgggga gcaggcgctg  
 240

ctgcagtggg accgcaagct gagcgagctg tcagagcccg gggacggcga ggcctcatg  
300  
taccacacgc acttctcaga acttctggat gagttttccc agaactctt gggtcagctc  
360  
ctgaatgac cttctctctc agagaagagt gtgtcaatgg aggtggaacc ttccccgacg  
420  
tccccggcgc ctctcatcca ggctgagcac agctactccc tgtgcgagga gcctcggggc  
480  
cagtcgccct taccacacat taccaccagt gacagcttca atgacgatga ggtggaaagt  
540  
nngagaaatg gtacctgtct acagacttcc cttcaacatc catcaagaca gagccagtta  
600  
cagacgaacc acccccagga ctcggtccgt ctgtcactct gaccatcaca gccatctcca  
660  
ccnctgttg aaaaggagga acctcctctg gaaatgaaca ctgggggtga ttctctgtgc  
720  
cagaccatta ttctaaaaat taagctggag cctcatgaag tggatcagtt tctaaacttc  
780  
tctctaaag aaggtctgtc tngccctccc tgtgtccctt tgggttatgg atatggtctc  
840  
tgggtctaca gagagggaat atggcgagag agctgggatg agttgtacc acagatgttg  
900  
tagctggctt tatgaaatag ctctgttctt aaaaaataaa aattttgctt ccaaataaa  
959

&lt;210&gt; 3410

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3410

Met	Glu	Val	Leu	Glu	Ser	Gly	Glu	Gln	Gly	Val	Leu	Gln	Trp	Asp	Arg
1				5					10					15	
Lys	Leu	Ser	Glu	Leu	Ser	Glu	Pro	Gly	Asp	Gly	Glu	Ala	Leu	Met	Tyr
			20					25					30		
His	Thr	His	Phe	Ser	Glu	Leu	Leu	Asp	Glu	Phe	Ser	Gln	Asn	Val	Leu
			35				40					45			
Gly	Gln	Leu	Leu	Asn	Asp	Pro	Phe	Leu	Ser	Glu	Lys	Ser	Val	Ser	Met
			50			55				60					
Glu	Val	Glu	Pro	Ser	Pro	Thr	Ser	Pro	Ala	Pro	Leu	Ile	Gln	Ala	Glu
65				70					75					80	
His	Ser	Tyr	Ser	Leu	Cys	Glu	Glu	Pro	Arg	Ala	Gln	Ser	Pro	Phe	Thr
			85					90					95		
His	Ile	Thr	Thr	Ser	Asp	Ser	Phe	Asn	Asp	Asp	Glu	Val	Glu	Ser	Xaa
			100				105						110		
Arg	Asn	Gly	Thr	Cys	Leu	Gln	Thr	Ser	Leu	Gln	His	Pro	Ser	Arg	Gln
		115				120					125				
Ser	Gln	Leu	Gln	Thr	Asn	His	Pro	Gln	Asp	Ser	Phe	Arg	Leu	Ser	Leu
		130				135						140			

&lt;210&gt; 3411

&lt;211&gt; 958

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 3411  
 nngcgcgccg gttttgttgt tattgcgagg gggtcgcggg ggggcggggc agtgaccccg  
 60  
 ggccggccgt tgtgccctca tccctccac ccttccttcg tatagcttc ttttccctca  
 120  
 cgacggccctc cacagtcgg agcccgccgg agcccgacc tggcggggag agctgcctcc  
 180  
 acggccgggc acccagaccc caccgtcgca gtcgccacca cctcagtcga tcccttggtac  
 240  
 cggcaatggg ctctgtatcc tccagtgcac tigtactga ctggacacg gaatactaag  
 300  
 aactcacttc tgtcctcacc ccagtcgcgc cggcgggtgac catctcggct cttttgggct  
 360  
 taactgccgc tccctctggac tctgtctgac tttgggggca ccatggacca aagtgggatg  
 420  
 gagattcctg tgacctcat cattaaagca ccgaatcaga aatacagtga ccagactatt  
 480  
 agctgcttct tgaactggac cgtggggaaa ctaaaaacgc atctatctaa cgtttaccct  
 540  
 agcaaacctc tgacgaagga tcagagattg gtgtattcgg gcagactgct tcccgatcat  
 600  
 ctgcagctga aagacattct cagaaaaaa gatgagtatc atatggttca tctagtatgt  
 660  
 acttctcgga ctctctccag ttctccaaaa tccagacca atagagaaag tcatgaagca  
 720  
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 <213> Homo sapiens

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 Met Val His Leu Val Cys Thr Ser Arg Thr Pro Pro Ser Ser Pro Lys  
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 Ser Ser Thr Asn Arg Glu Ser His Glu Ala Leu Ala Ser Ser Ser Asn

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Tyr	Val	Met	Gln	Gly	Asn	Val	Asp	Asn	Gln	Phe	Pro	Gly	Gln	Ala	Ala
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&lt;210&gt; 3413

&lt;211&gt; 3344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3413

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 <213> Homo sapiens

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 Gly Gly Val Ser Ser Val Asn Glu Arg Pro Ile Ala Gln Gln Leu Asn  
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 Pro Gly Phe Gln Leu Ser Phe Ala Ser Ser Gly Pro Ser Val Leu Leu  
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 Pro Ser Lys Asp Phe Cys Ser Gln Ser Cys Leu Ser Ser Tyr Glu Leu  
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340      345      350
Phe Gln Asn Val Phe Ser Lys Pro Lys Gly Thr Asn Ser Ser Ala Val
355      360      365
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385      390      395      400
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Gln Gln Val Ala Leu Thr His Thr Val Val Lys Leu Lys Cys Gln His
420      425      430
Cys Asn His Leu Phe Ala Thr Lys Pro Glu Leu Leu Phe Tyr Lys Gly
435      440      445
Lys Met Phe Leu Phe Cys Gly Lys Asn Cys Ser Asp Glu Tyr Lys Lys
450      455      460
Lys Asn Lys Val Val Ala Met Cys Glu Tyr Cys Lys Ile Glu Lys Ile
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Val Lys Glu Thr Val Arg Phe Ser Gly Ala Asp Lys Ser Phe Cys Ser
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Glu Gly Cys Lys Leu Leu Tyr Lys His Asp Leu Ala Lys Arg Trp Gly
500      505      510
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515      520      525
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545      550      555      560
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565      570      575
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580      585      590
Gln Gln Ile Met Asn Asp Cys Leu Pro Gln Asn Lys Val Asn Ile Ser
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Thr Pro Val Ile Thr Ser Val Met Ser Leu Ala Lys Ile Pro Ala Thr

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Lys Phe Pro Ser Ser Gln Ser Ser Gln Pro Ser Arg Leu Leu Lys Asn
          675          680          685
Lys Gly Ile Ser Cys Lys Pro Val Thr Gln Thr Lys Ala Thr Ser Cys
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<212> DNA
<213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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 Asn Pro Ala Phe Lys Pro Val Leu Ala Ile Ile Gln Ala Gly Asp Asp  
 35 40 45  
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 50 55 60  
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 65 70 75 80  
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 85 90 95  
 Ala Leu Gln Ile Ser Glu Asn Leu Phe Ser Asn Lys Val Leu Asn Ala  
 100 105 110  
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 115 120 125  
 Lys Leu Val Arg Gly Asp Ala His Glu Cys Phe Val Ser Pro Val Ala

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Gly Lys Lys Ile Leu Val Val Gly Ala His Gly Ser Leu Glu Ala Ala
      165      170      175
Leu Gln Cys Leu Phe Gln Arg Lys Gly Ser Met Thr Met Ser Ile Gln
      180      185      190
Trp Lys Thr Arg Gln Leu Gln Ser Lys Leu His Glu Ala Asp Ile Val
      195      200      205
Val Leu Gly Ser Pro Lys Pro Glu Glu Ile Pro Leu Thr Trp Ile Gln
      210      215      220
Pro Gly Thr Thr Val Leu Asn Cys Ser His Asp Phe Leu Ser Gly Lys
      225      230      235      240
Val Gly Cys Gly Ser Pro Arg Ile Xaa Ile Leu Val Asp Ser Leu Arg
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Lys Met Met

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 <211> 405  
 <212> DNA  
 <213> Homo sapiens

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360
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405

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<210> 3418  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

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Ile Phe Arg Ser Leu His Thr Leu Val Gly Gln Leu Asp Leu Arg Asp
35      40      45
Asp Val Val Lys Ile Thr Ile Asp Trp Asn Lys Leu Gln Ser Leu Ser
50      55      60
Ala Phe Gln Pro Ala Leu Leu Phe Ser Ala Leu Glu Gln His Ile Leu

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 <212> DNA  
 <213> Homo sapiens

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 aatgggggcta cgtcgcgtga cctcacgtgt ggttcctctg agcgtagtgc ttccagggc  
 180  
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 240  
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 Cys Cys Leu Ala Leu Lys Ala His Arg Arg Pro Cys Val His Leu His  
                     35                      40                      45  
 Cys Asp Thr Val Ala Leu Glu Ser Thr Thr Leu Arg Gly Thr Thr Arg  
                     50                      55                      60  
 Glu Val Thr Arg Arg Ser Pro Ile Asn Met Lys His Pro Glu Gln Gly  
 65                      70                      75                      80  
 Glu Pro Gly Gly Pro Ala Asp Gln Trp Val Pro Arg Arg Glu Trp Ala  
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 Gly Trp Asp Gly Ser Gly Val Asn Arg  
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<210> 3421  
 <211> 2988  
 <212> DNA  
 <213> Homo sapiens

<400> 3421  
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1680

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 2988

&lt;210&gt; 3422

&lt;211&gt; 418

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3422

Met Ser Arg His Leu Pro Trp Ile Cys Asp Gln Arg Cys Ser Ser Pro

1

5

10

15

Ser Ser Pro Gly Arg Trp Pro Pro Ala Ala Arg Met Trp Leu Pro Arg



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Phe Ser Ser Lys Thr Val Thr Val Leu Leu Leu Ala Gln Thr Thr Cys
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Gly Glu Asp Arg Val His Val Leu Val Leu Ser Ser Trp Arg Ser Gly
  65      70      75      80
Ser Ser Phe Leu Gly Gln Leu Phe Ser Gln His Pro Asp Val Phe Tyr
  85      90      95
Leu Met Glu Pro Ala Trp His Val Trp Thr Thr Leu Ser Gln Gly Ser
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Ala Ala Thr Leu His Met Ala Val Arg Asp Leu Met Arg Ser Ile Phe
  115      120      125
Leu Cys Asp Met Asp Val Phe Asp Ala Tyr Met Glu Pro Gly Pro Arg
  130      135      140
Arg Gln Ser Ser Leu Phe Gln Trp Glu Asn Ser Arg Ala Leu Cys Ser
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Ala Pro Ala Cys Asp Ile Ile Pro Gln Asp Glu Ile Ile Pro Arg Ala
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His Cys Arg Leu Leu Cys Ser Gln Gln Pro Phe Glu Val Val Glu Lys
  180      185      190
Ala Cys Arg Ser Tyr Ser His Val Val Leu Lys Glu Val Arg Phe Phe
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Asn Leu Gln Ser Leu Tyr Pro Leu Leu Lys Asp Pro Ser Leu Asn Leu
  210      215      220
His Ile Val His Leu Val Arg Asp Pro Arg Ala Val Leu Arg Ser Arg
  225      230      235      240
Glu Ala Ala Gly Pro Ile Leu Ala Arg Asp Asn Gly Ile Val Leu Gly
  245      250      255
Thr Asn Gly Lys Trp Val Glu Ala Asp Pro His Leu Arg Leu Ile Arg
  260      265      270
Glu Val Cys Arg Ser His Val Arg Ile Ala Glu Ala Ala Thr Leu Lys
  275      280      285
Pro Pro Pro Phe Leu Arg Gly Arg Tyr Arg Leu Val Arg Phe Glu Asp
  290      295      300
Leu Ala Arg Glu Pro Leu Ala Glu Ile Arg Ala Leu Tyr Ala Phe Thr
  305      310      315      320
Gly Leu Thr Leu Thr Pro Gln Leu Glu Ala Trp Ile His Asn Ile Thr
  325      330      335
His Gly Ser Gly Ile Gly Lys Pro Ile Glu Ala Phe His Thr Ser Ser
  340      345      350
Arg Asn Ala Arg Asn Val Ser Gln Ala Trp Arg His Ala Leu Pro Phe
  355      360      365
Thr Lys Ile Leu Arg Val Gln Glu Val Cys Ala Gly Ala Leu Gln Leu
  370      375      380
Leu Gly Tyr Arg Pro Val Tyr Ser Ala Asp Gln Gln Arg Asp Leu Thr
  385      390      395      400
Leu Asp Leu Val Leu Pro Arg Gly Pro Asp His Phe Ser Trp Ala Ser
  405      410      415
Pro Asp

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&lt;210&gt; 3423

&lt;211&gt; 1851

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3423

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240  
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300  
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 1851

<210> 3424  
 <211> 136  
 <212> PRT  
 <213> Homo sapiens

<400> 3424  
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 Ala Ser Tyr Gly Val Arg Gln Asp Gly Asp Pro Ala Phe Leu Tyr Leu  
 35 40 45  
 Leu Ser Ala Pro Arg Glu Ala Pro Ala Thr Gly Pro Ser Pro Gln His  
 50 55 60  
 Pro Gln Lys Met Asp Gly Glu Leu Gly Arg Leu Phe Pro Pro Ser Leu  
 65 70 75 80  
 Gly Leu Pro Pro Gly Pro Gln Pro Ala Ala Ser Ser Leu Pro Ser Pro  
 85 90 95  
 Leu Gln Pro Ser Trp Ser Cys Pro Ser Cys Thr Phe Ile Asn Ala Pro  
 100 105 110  
 Asp Arg Pro Gly Cys Glu Met Cys Ser Thr Gln Arg Pro Cys Thr Trp  
 115 120 125  
 Asp Pro Leu Ala Ala Ala Ser Thr  
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<210> 3425  
 <211> 1416  
 <212> DNA  
 <213> Homo sapiens

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 1380  
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 1416

&lt;210&gt; 3426

&lt;211&gt; 410

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3426

Ser Gly Gly Lys Gly Leu Cys Cys Cys Ala Arg Ala Gly Ala Ala Ala  
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 20 25 30  
 Ser Leu Gly Arg Asp Pro Gly Arg Glu Glu Glu Val Arg Pro Arg Gly  
 35 40 45  
 Arg Lys Ala Ala Ser Pro Gly Ala Pro Arg Pro Trp Pro Arg His Ser  
 50 55 60  
 Thr His Met Ala Ser Gly Val Gly Ala Ala Phe Glu Glu Leu Pro His

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65      70      75      80
Asp Gly Thr Cys Asp Glu Cys Glu Pro Asp Glu Ala Pro Gly Ala Glu
      85      90      95
Glu Val Cys Arg Glu Cys Gly Phe Cys Tyr Cys Arg Arg His Ala Glu
      100     105     110
Ala His Arg Gln Lys Phe Leu Ser His His Leu Ala Glu Tyr Val His
      115     120     125
Gly Ser Gln Ala Trp Thr Pro Ala Asp Gly Glu Gly Ala Gly Lys
      130     135     140
Glu Glu Ala Glu Val Lys Val Glu Gln Glu Arg Glu Ile Glu Ser Glu
      145     150     155     160
Ala Gly Glu Glu Ser Glu Ser Glu Glu Glu Ser Glu Ser Glu Glu Glu
      165     170     175
Ser Glu Thr Glu Glu Glu Ser Glu Asp Glu Ser Asp Glu Glu Ser Glu
      180     185     190
Glu Asp Ser Glu Glu Glu Met Glu Asp Glu Gln Glu Ser Glu Ala Glu
      195     200     205
Glu Asp Asn Gln Glu Glu Gly Glu Ser Glu Ala Glu Gly Glu Thr Glu
      210     215     220
Ala Glu Ser Glu Phe Asp Pro Glu Ile Glu Met Glu Ala Glu Arg Val
      225     230     235     240
Ala Lys Arg Lys Cys Pro Asp His Gly Leu Asp Leu Ser Thr Tyr Cys
      245     250     255
Gln Glu Asp Arg Gln Leu Ile Cys Val Leu Cys Pro Val Ile Gly Ala
      260     265     270
His Gln Gly His Gln Leu Ser Thr Leu Asp Glu Ala Phe Glu Glu Leu
      275     280     285
Arg Ser Lys Asp Ser Gly Gly Leu Lys Ala Ala Met Ile Glu Leu Val
      290     295     300
Glu Arg Leu Lys Phe Lys Ser Ser Asp Pro Lys Val Thr Arg Asp Gln
      305     310     315     320
Met Lys Met Phe Ile Gln Gln Glu Phe Lys Lys Val Gln Lys Val Ile
      325     330     335
Ala Asp Glu Glu Gln Lys Ala Leu His Leu Val Asp Ile Gln Glu Ala
      340     345     350
Met Ala Thr Ala His Val Thr Glu Ile Leu Ala Asp Ile Gln Ser His
      355     360     365
Met Asp Arg Leu Met Thr Gln Met Ala Gln Ala Lys Glu Gln Leu Asp
      370     375     380
Thr Ser Asn Glu Ser Ala Glu Pro Lys Ala Glu Gly Asp Glu Glu Gly
      385     390     395     400
Pro Ser Gly Ala Ser Glu Glu Glu Asp Thr
      405     410

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<210> 3427  
 <211> 580  
 <212> DNA  
 <213> Homo sapiens

<400> 3427  
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 180  
 caggattttc tctggacaca actctgaact tagactcttt aaggactctg cactcctgtg  
 240  
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 420  
 tttcaggtct gacagacact ccaggggaatc ttcataccac tgtgtttcat catgattata  
 480  
 ccctgaagcc ccatgggtcca gttccaattc ctgaagcctt ctactgcttg cagggcctgg  
 540  
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 580

<210> 3428

<211> 132

<212> PRT

<213> Homo sapiens

<400> 3428

Met Asp Ser Leu Ala Leu Ser Asn Ile Thr Gly Ala Ser Val Asp Gly  
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 Glu Asn Lys Pro Arg Pro Ser Leu Tyr Ser Leu Gln Asn Phe Glu Glu  
 20 25 30  
 Met Glu Thr Glu Asp Cys Glu Lys Met Ser Asn Met Gly Thr Leu Asn  
 35 40 45  
 Ser Ser Met Leu His Arg Ser Ala Glu Ser Leu Lys Ser Leu Ser Ser  
 50 55 60  
 Glu Leu Cys Pro Glu Lys Ile Leu Pro Glu Glu Lys Pro Val His Leu  
 65 70 75 80  
 Pro Val Leu Arg Arg Ser Lys Ser Gln Ser Arg Pro Gln Gln Val Lys  
 85 90 95  
 Phe Ser Asp Asp Val Ile Asp Asn Gly Asn Tyr Asp Ile Glu Ile Arg  
 100 105 110  
 Gln Pro Pro Met Ser Glu Arg Thr Arg Arg Arg Val Tyr Asn Phe Glu  
 115 120 125  
 Glu Arg Gly Ser  
 130

<210> 3429

<211> 634

<212> DNA

<213> Homo sapiens

<400> 3429

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 120  
 gtcagcttcc ttttcatact ttcccggcgt tctctccacg agcaggtgca ccagggacct  
 180

gtccctctgt cctacacggt caccacagtg acgaccaag gcttccctt gcctacaggc  
 240  
 cagcacatcc ctggctgcag tgcccagcag ctcccagcat gctccgtgat gttcagtggg  
 300  
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 360  
 ctgctgtgc cctatcaggc ctacccccac ctcatctcca gtgaccacta catcctgcac  
 420  
 cccccaccac cgggcacaca cccagcagct ccagggtctg tataagaac cctgtggaag  
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 634

<210> 3430

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3430

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 Tyr Thr Val Thr Thr Val Thr Thr Gln Gly Phe Pro Leu Pro Thr Gly  
 35 40 45  
 Gln His Ile Pro Gly Cys Ser Ala Gln Gln Leu Pro Ala Cys Ser Val  
 50 55 60  
 Met Phe Ser Gly Gln His Tyr Pro Leu Cys Cys Leu Pro Pro Pro Leu  
 65 70 75 80  
 Ile Gln Ala Cys Thr Met Gln Gln Leu Pro Val Pro Tyr Gln Ala Tyr  
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 100 105 110  
 Gly Thr His Pro Ala Ala Pro Gly Ser Val  
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<210> 3431

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 3431

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 120  
 ctgctgggga gcagcgtccc aatgccagcg cgtcacgtcg ccagcgtgc cctagcacgc  
 180  
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 300  
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 360  
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 <212> PRT  
 <213> Homo sapiens

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Leu Phe Leu Glu Ser Ala Arg Trp Leu Ile Val Lys Arg Gln Ile Glu		80
	85	90
Glu Ala Gln Ser Val Leu Arg Ile Leu Ala Glu Arg Asn Arg Pro His		95
	100	105
Gly Gln Met Leu Gly Glu Glu Ala Gln Glu Ala Leu Gln Asp Leu Glu		110
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Asn Thr Cys Pro Leu Pro Ala Thr Ser Ser Phe Ser Phe Ala Ser Leu		125
	130	135
Leu Asn Tyr Arg Asn Ile Trp Lys Asn Leu Leu Ile Leu Gly Phe Thr		140
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Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr Gln Pro Val Gly Gly		155
	160	165
Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser Leu Leu Ala Ser Gly		170
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Thr Ala Ala Leu Ala Cys Val Phe Leu Gly Val Thr Val Asp Arg Phe		185
	190	195
Gly Arg Arg Gly Ile Leu Leu Leu Ser Met Thr Leu Thr Gly Ile Ala		200
	205	210
Ser Leu Val Leu Leu Gly Leu Trp Asp Cys Glu His Pro Ile Phe Pro		215
	220	225
Thr Val Trp Ala Gln Gly Asn Pro Asn Arg Asp Leu Asn Glu Ala		230
	235	240
Ala Ile Thr Thr Phe Ser Val Leu Gly Leu Phe Ser Ser Gln Ala Ala		245
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Ala Ile Leu Ser Thr Leu Leu Ala Ala Glu Val Ile Pro Thr Thr Val		260
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Arg Gly Arg Gly Leu Gly Leu Ile		275
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&lt;211&gt; 1257

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3433

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<211> 311

<212> PRT

<213> Homo sapiens

<400> 3434

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 35 40 45  
 Ser Asn Leu Lys Arg Asp Val Ala His Leu Tyr Arg Gly Val Gly Ser  
 50 55 60  
 Arg Tyr Ile Met Gly Ser Gly Glu Ser Phe Met Gln Leu Gln Gln Arg  
 65 70 75 80  
 Leu Leu Arg Glu Lys Glu Ala Lys Ile Arg Lys Ala Leu Asp Arg Leu  
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 Arg Lys Lys Arg His Leu Leu Arg Arg Gln Arg Thr Arg Arg Glu Phe  
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 Arg Gly Gly Ala Phe Arg Gly Leu Arg Val Thr Gly Glu Asp Ser Pro  
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 Gly Gly Gly Gln Gly Val Pro Val Val Ser Val Val Pro Tyr Asp Ser  
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 Cys Gly Glu His Val Pro Arg Arg Gly Gly Ser His Gly Arg Arg Val

165 170 175  
 Gly Tyr Thr Ser Cys Cys Glu Ser Ser Pro Arg Arg Arg Val Ser Cys  
 180 185 190  
 Gly Leu Cys Val Gly Tyr Ser Ser Gln Gly Glu Asp Val Ile Tyr Pro  
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 Ser Ile Tyr Thr Ile Leu Leu Ser Arg Pro Ser Pro Leu Pro Tyr Leu  
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 245 250 255  
 Leu Cys Leu Tyr His Pro Pro Val Tyr Thr Ser Thr Thr Thr Pro Ser  
 260 265 270  
 Ile Pro Pro Pro Arg Leu His Asn Pro Pro Val Tyr Thr Thr Met Ser  
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 <211> 1225  
 <212> DNA  
 <213> Homo sapiens

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<210> 3436

<211> 408

<212> PRT

<213> Homo sapiens

<400> 3436

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 35 40 45  
 Glu Ser Asp Gly Ser Gln Cys Gln His Trp Val Arg Leu Thr Met Lys  
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 85 90 95  
 Asn Leu Lys Lys Leu Ser Asp Val Ser Ile Asp Xaa Arg Pro Ser Ser  
 100 105 110  
 Gly Xaa Val Cys Val Leu Glu Asp Met Thr Val His Leu Pro Ile Ile  
 115 120 125  
 Glu Ile Arg Ile Val Glu Cys Arg Asp Asp Gly Ile Asp Val Arg Leu  
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 Gly Thr Asp Pro Glu Val Leu Tyr Arg Arg Ala Val Leu Leu Gln Arg  
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260 265 270  
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&lt;210&gt; 3437

&lt;211&gt; 2081

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3437

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 <211> 105  
 <212> PRT  
 <213> Homo sapiens

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Pro Leu Arg Val Pro Cys Leu Ala Thr Gln Pro Leu Pro Ala Gln Glu
      65          70          75          80
Pro Gly Arg Ala Gln Pro Arg Ala Gly Gly Ile Cys Glu Gly Ala
      85          90          95
Gly Arg Arg Gly Ala Ala Glu Asp Pro
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&lt;210&gt; 3439

&lt;211&gt; 1519

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3439

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<210> 3440

<211> 287

<212> PRT

<213> Homo sapiens

<400> 3440

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 Thr Ser Pro Met Pro Pro Pro Ala Ala Leu Arg Pro Pro Ala Gly Pro  
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 130 135 140  
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 165 170 175  
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 180 185 190  
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 225 230 235 240  
 Gly Arg Gln Ala Ser Thr Pro Thr Leu Gly Asn Ala Glu Pro Leu Arg  
 245 250 255  
 Met Cys Ala Arg Gly Arg Val Cys Val Phe Leu Arg Val Ser Leu Phe



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 <211> 2074  
 <212> DNA  
 <213> Homo sapiens

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 1920  
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 2040  
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 2074

&lt;210&gt; 3442

&lt;211&gt; 374

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3442

Met Val Gly Lys Asn Val Lys Leu Tyr Asp Met Val Leu Gln Phe Leu  
 1 5 10 15  
 Arg Thr Leu Phe Leu Arg Thr Arg Asn Val His Tyr Cys Thr Leu Arg  
 20 25 30  
 Ala Glu Leu Leu Met Ser Leu His Asp Leu Asp Val Gly Glu Ile Cys  
 35 40 45  
 Thr Val Asp Pro Cys His Lys Phe Thr Trp Cys Leu Asp Ala Cys Ile  
 50 55 60  
 Arg Glu Arg Phe Val Asp Ser Lys Arg Ala Arg Glu Leu Gln Gly Phe  
 65 70 75 80  
 Leu Asp Asp Val Lys Lys Gly Gln Glu Gln Val Leu Gly Asp Leu Ser  
 85 90 95  
 Met Ile Leu Cys Asp Pro Phe Ala Ile Asn Thr Leu Ala Leu Ser Thr  
 100 105 110  
 Val Arg His Leu Gln Glu Leu Val Gly Gln Glu Thr Leu Pro Arg Asp  
 115 120 125  
 Ser Pro Asp Leu Leu Leu Leu Arg Leu Leu Ala Leu Gly Gln Gly  
 130 135 140  
 Ala Trp Asp Met Ile Asp Ser Gln Val Phe Lys Glu Pro Lys Met Glu  
 145 150 155 160  
 Val Glu Leu Ile Thr Arg Phe Leu Pro Met Leu Met Ser Phe Leu Val

```

      165      170      175
Asp Asp Tyr Thr Phe Asn Val Asp Gln Lys Leu Pro Ala Glu Glu Lys
      180      185      190
Ala Pro Val Ser Tyr Pro Asn Thr Leu Pro Glu Ser Phe Thr Lys Phe
      195      200      205
Leu Gln Glu Gln Arg Met Ala Cys Glu Val Gly Leu Tyr Tyr Val Leu
      210      215      220
His Ile Thr Lys Gln Arg Asn Lys Asn Ala Leu Leu Arg Leu Leu Pro
      225      230      235      240
Gly Leu Val Glu Thr Phe Gly Asp Leu Ala Phe Gly Asp Ile Phe Leu
      245      250      255
His Leu Leu Thr Gly Asn Leu Ala Leu Leu Ala Asp Glu Phe Ala Leu
      260      265      270
Glu Asp Phe Cys Ser Ser Leu Phe Asp Gly Phe Phe Leu Thr Ala Ser
      275      280      285
Pro Arg Lys Glu Asn Val His Arg His Ala Leu Arg Leu Leu Ile His
      290      295      300
Leu His Pro Arg Val Ala Pro Ser Lys Leu Glu Ala Leu Gln Lys Ala
      305      310      315      320
Leu Glu Pro Thr Gly Gln Ser Gly Glu Ala Val Lys Glu Leu Tyr Ser
      325      330      335
Gln Leu Gly Glu Lys Leu Glu Gln Leu Asp His Arg Lys Pro Ser Pro
      340      345      350
Ala Gln Ala Ala Glu Thr Pro Ala Leu Glu Leu Pro Leu Pro Ser Val
      355      360      365
Pro Ala Pro Ala Pro Leu
      370

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&lt;210&gt; 3443

&lt;211&gt; 2070

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3443

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240
tgtggaaaga tctttgcagt ggaataactt gacaaagctg acattccact tgttgttctg
300
tacgatacct caggagaaga tgatatcaat atcaatgccca cctgcttgaa ggctatatgt
360
gacaagtcac tagaggttca cctgcagggt gacgccatgt acacaaatgt caaaataact
420
aatatttgct ctgatgggac actctactgc caggtgcctt gtaagggctt gaacaagctc
480
agtgaacctt tacgtaagat agaggactac ttccattgca agcacatgac ctctgagtgc
540
tttgtttcat tacccttctg tgggaaaatc tgcctcttcc attgcaaagg aaaatggtta
600

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1440  
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1920  
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1980  
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2040  
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2070

&lt;210&gt; 3444

&lt;211&gt; 579

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3444

```

Leu Ala Val Asn Ala Glu Glu Asp Ala Trp Leu Arg Ala Gln Val Ile
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Ser Thr Glu Glu Asn Lys Ile Lys Val Cys Tyr Val Asp Tyr Gly Phe
 20           25           30
Ser Glu Asn Val Glu Lys Ser Lys Ala Tyr Lys Leu Asn Pro Lys Phe
 35           40           45
Cys Ser Leu Ser Phe Gln Ala Thr Lys Cys Lys Leu Ala Gly Leu Glu
 50           55           60
Val Leu Ser Asp Asp Pro Asp Leu Val Lys Val Val Glu Ser Leu Thr
 65           70           75           80
Cys Gly Lys Ile Phe Ala Val Glu Ile Leu Asp Lys Ala Asp Ile Pro
 85           90           95
Leu Val Val Leu Tyr Asp Thr Ser Gly Glu Asp Asp Ile Asn Ile Asn
100           105           110
Ala Thr Cys Leu Lys Ala Ile Cys Asp Lys Ser Leu Glu Val His Leu
115           120           125
Gln Val Asp Ala Met Tyr Thr Asn Val Lys Ile Thr Asn Ile Cys Ser
130           135           140
Asp Gly Thr Leu Tyr Cys Gln Val Pro Cys Lys Gly Leu Asn Lys Leu
145           150           155           160
Ser Asp Leu Leu Arg Lys Ile Glu Asp Tyr Phe His Cys Lys His Met
165           170           175
Thr Ser Glu Cys Phe Val Ser Leu Pro Phe Cys Gly Lys Ile Cys Leu
180           185           190
Phe His Cys Lys Gly Lys Trp Leu Arg Val Glu Ile Thr Asn Val His
195           200           205
Ser Ser Arg Ala Leu Asp Val Gln Phe Leu Asp Ser Gly Thr Val Thr
210           215           220
Ser Val Lys Val Ser Glu Leu Arg Glu Ile Pro Pro Arg Phe Leu Gln
225           230           235           240
Glu Met Ile Ala Ile Pro Pro Gln Ala Ile Lys Cys Cys Leu Ala Asp
245           250           255
Leu Pro Gln Ser Ile Gly Met Trp Thr Pro Asp Ala Val Leu Trp Leu
260           265           270
Arg Asp Ser Val Leu Asn Cys Ser Asp Cys Ser Ile Lys Val Thr Lys
275           280           285
Val Asp Glu Thr Arg Gly Ile Ala His Val Tyr Leu Phe Thr Pro Lys
290           295           300
Asn Phe Pro Asp Pro His Arg Ser Ile Asn Arg Gln Ile Thr Asn Ala
305           310           315           320
Asp Leu Trp Lys His Gln Lys Asp Val Phe Leu Ser Ala Ile Ser Ser
325           330           335
Gly Ala Asp Ser Pro Asn Ser Lys Asn Gly Asn Met Pro Met Ser Gly
340           345           350
Asn Thr Gly Glu Asn Phe Arg Lys Asn Leu Thr Asp Val Ile Lys Lys
355           360           365
Ser Met Val Asp His Thr Ser Ala Phe Ser Thr Glu Leu Pro Pro
370           375           380
Pro Val His Leu Ser Lys Pro Gly Glu His Met Asp Val Tyr Val Pro
385           390           395           400
Val Ala Cys His Pro Gly Tyr Phe Val Ile Gln Pro Trp Gln Glu Ile

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405                      410                      415  
 His Lys Leu Glu Val Leu Met Glu Glu Met Ile Leu Tyr Tyr Ser Val  
                          420                      425                      430  
 Ser Glu Glu Arg His Ile Ala Val Glu Lys Asp Gln Val Tyr Ala Ala  
                          435                      440                      445  
 Lys Val Glu Asn Lys Trp His Arg Val Leu Leu Lys Gly Ile Leu Thr  
                          450                      455                      460  
 Asn Gly Leu Val Ser Val Tyr Glu Leu Asp Tyr Gly Lys His Glu Leu  
                          465                      470                      475                      480  
 Val Asn Ile Arg Lys Val Gln Pro Leu Val Asp Met Phe Arg Lys Leu  
                          485                      490                      495  
 Pro Phe Gln Ala Val Thr Ala Gln Leu Ala Gly Val Lys Cys Asn Gln  
                          500                      505                      510  
 Trp Ser Glu Glu Ala Ser Met Val Phe Arg Asn His Val Glu Lys Lys  
                          515                      520                      525  
 Pro Leu Val Ala Leu Val Gln Thr Val Ile Glu Asn Ala Asn Pro Trp  
                          530                      535                      540  
 Asp Arg Lys Val Val Val Tyr Leu Val Asp Thr Ser Leu Pro Asp Thr  
                          545                      550                      555                      560  
 Asp Thr Trp Ile His Asp Phe Met Ser Glu Tyr Leu Ile Glu Leu Ser  
                          565                      570                      575  
 Lys Val Asn

<210> 3445  
 <211> 2086  
 <212> DNA  
 <213> Homo sapiens

<400> 3445  
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 660  
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 720

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ctcctggacc tatttatcct gaaacacctt cttgtattca ttaaccatag tactcctccc  
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caccctcaagt agacacctct ctcaggagct tctgagtcag acgcctctgg agcgagccct  
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1320  
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1440  
agatcaaatg attatatgct gtgtgctttt taggtgtttg ttagtactgt gaaggcaaaa  
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1860  
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1920  
cttttcaact ggccattctg gttttaaggg acaagctaca agctctgtgt ttctgtactg  
1980  
atgtgtcact tattaataac ttttgtacca tgagtataac ttcagggtgt tcgcaagaac  
2040  
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2086

&lt;210&gt; 3446

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3446

Met Asp Ala Leu Glu Gly Glu Ser Phe Ala Leu Ser Phe Ser Ser Ala

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      1           5           10           15
Ser Asp Ala Glu Phe Asp Ala Val Val Gly Tyr Leu Glu Asp Ile Ile
      20           25           30
Met Asp Asp Glu Phe Gln Leu Leu Gln Arg Asn Phe Met Asp Lys Tyr
      35           40           45
Tyr Leu Glu Phe Glu Asp Thr Glu Glu Asn Lys Leu Ile Tyr Thr Pro
      50           55           60
Ile Phe Asn Glu Tyr Ile Ser Leu Val Glu Lys Tyr Ile Glu Glu Gln
      65           70           75           80
Leu Leu Gln Arg Ile Pro Glu Phe Asn Met Ala Ala Phe Thr Thr Thr
      85           90           95
Leu His His Leu Phe Arg Leu Arg His His Lys Asp Glu Val Ala Gly
      100          105          110
Asp Ile Phe Asp Met Leu Leu Thr Phe Thr Asp Phe Leu Ala Phe Lys
      115          120          125
Glu Met Phe Leu Asp Tyr Arg Ala Glu Lys Glu Gly Arg Gly Leu Asp
      130          135          140
Leu Ser Ser Gly Leu Val Val Thr Ser Leu Cys Lys Ser Ser Ser Leu
      145          150          155          160
Pro Ala Ser Gln Asn Asn Leu Arg His
      165

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&lt;210&gt; 3447

&lt;211&gt; 936

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3447

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120
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180
ccggtgggta gagaggaaat ggagcacatg atccagaaga accaatgtct cttcaccaac
240
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300
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360
ttaaaggggg aaacgaagaa gctagactca gatcagaaga gcagcagaag caaagacaag
420
aaccagtgtc gccccatctg taacatgacc ttttctctcc ctgtcgtggc ccagtcgcac
480
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780

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 936

<210> 3448

<211> 302

<212> PRT

<213> Homo sapiens

<400> 3448

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 35 40 45  
 Ala Arg Arg Leu Trp Glu Ala Val Ser Gly Ala Gln Pro Val Gly Arg  
 50 55 60  
 Glu Glu Val Glu His Met Ile Gln Lys Asn Gln Cys Leu Phe Thr Asn  
 65 70 75 80  
 Thr Gln Cys Lys Val Cys Cys Ala Leu Leu Ile Ser Glu Ser Gln Lys  
 85 90 95  
 Leu Ala His Tyr Gln Ser Lys Lys His Ala Asn Lys Val Lys Arg Tyr  
 100 105 110  
 Leu Ala Ile His Gly Met Glu Thr Leu Lys Gly Glu Thr Lys Lys Leu  
 115 120 125  
 Asp Ser Asp Gln Lys Ser Ser Arg Ser Lys Asp Lys Asn Gln Cys Cys  
 130 135 140  
 Pro Ile Cys Asn Met Thr Phe Ser Ser Pro Val Val Ala Gln Ser His  
 145 150 155 160  
 Tyr Leu Gly Lys Thr His Ala Lys Asn Leu Lys Leu Lys Gln Gln Ser  
 165 170 175  
 Thr Lys Val Glu Ala Leu His Gln Asn Arg Glu Met Ile Asp Pro Asp  
 180 185 190  
 Lys Phe Cys Ser Leu Cys His Ala Thr Phe Asn Asp Pro Val Met Ala  
 195 200 205  
 Gln Gln His Tyr Val Gly Lys Lys His Arg Lys Gln Glu Thr Lys Leu  
 210 215 220  
 Lys Leu Met Ala Arg Tyr Gly Arg Leu Ala Asp Pro Ala Val Thr Asp  
 225 230 235 240  
 Phe Pro Ala Gly Lys Gly Tyr Pro Cys Lys Thr Cys Lys Ile Val Leu  
 245 250 255  
 Asn Ser Ile Glu Gln Tyr Gln Ala His Val Ser Gly Phe Lys His Lys  
 260 265 270  
 Asn Gln Ser Pro Lys Thr Val Ala Ser Ser Leu Gly Gln Ile Pro Met  
 275 280 285  
 Gln Arg Gln Pro Ile Gln Lys Asp Ser Thr Thr Leu Glu Asp  
 290 295 300

<210> 3449

<211> 877

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3449

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 120  
 ccggcccttc tggccggcac caaccccggt gctgctgctg cggatggagg cagttgcccc  
 180  
 gcacactacc cgggtgcacga gtgcgtcttc aaggggggatg tgaggagact ctccctcttc  
 240  
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 300  
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 360  
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 420  
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 480  
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 540  
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 780  
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 840  
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 877

&lt;210&gt; 3450

&lt;211&gt; 276

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3450

Xaa Ile Phe Ser Asn His His His Arg Leu Gln Leu Lys Ala Ala Pro  
 1 5 10 15  
 Ala Ser Ser Asn Pro Pro Gly Ala Pro Ala Leu Pro Leu His Asn Ser  
 20 25 30  
 Ser Val Thr Ala Asn Ser Gln Ser Pro Ala Leu Leu Ala Gly Thr Asn  
 35 40 45  
 Pro Val Ala Val Val Ala Asp Gly Gly Ser Cys Pro Ala His Tyr Pro  
 50 55 60  
 Val His Glu Cys Val Phe Lys Gly Asp Val Arg Arg Leu Ser Ser Leu  
 65 70 75 80  
 Ile Arg Thr His Asn Ile Gly Gln Lys Asp Asn His Gly Asn Thr Pro  
 85 90 95  
 Leu His Leu Ala Val Met Leu Gly Asn Lys Glu Cys Ala His Leu Leu

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      100      105      110
Leu Ala His Asn Ala Pro Val Lys Val Lys Asn Ala Gln Gly Trp Ser
      115      120      125
Pro Leu Ala Glu Ala Ile Ser Tyr Gly Asp Arg Gln Met Ile Thr Ala
      130      135      140
Leu Leu Arg Lys Leu Lys Gln Gln Ser Arg Glu Ser Val Glu Glu Lys
      145      150      155      160
Arg Pro Arg Leu Leu Lys Ala Leu Lys Glu Leu Gly Asp Phe Tyr Leu
      165      170      175
Glu Leu His Trp Asp Phe Gln Ser Trp Val Pro Leu Leu Ser Arg Ile
      180      185      190
Leu Pro Ser Asp Ala Cys Lys Ile Tyr Lys Gln Gly Ile Asn Ile Arg
      195      200      205
Leu Asp Thr Thr Leu Ile Asp Phe Thr Asp Met Lys Cys Gln Arg Gly
      210      215      220
Asp Leu Ser Phe Ile Phe Asn Gly Asp Ala Ala Pro Ser Glu Ser Phe
      225      230      235      240
Val Val Leu Asp Asn Glu Gln Lys Val Tyr Gln Arg Ile His His Glu
      245      250      255
Ala His Ile Pro Gly Ile Arg Asp Gly Asn Arg Arg Arg Gly Gly Tyr
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Phe Asn Glu Gln
      275

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<210> 3451
<211> 595
<212> DNA
<213> Homo sapiens

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<210> 3452
<211> 192
<212> PRT

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&lt;213&gt; Homo sapiens

&lt;400&gt; 3452

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Leu Ile Ala Thr Asn Thr Thr Glu Asn Ser Thr Arg Glu Glu Val Asn
           20           25           30
Glu Arg Gln Ser His Pro Ala Thr Gln Gln Gln Leu Gly Lys Thr Leu
           35           40           45
Gln Ser Lys Gln Leu Pro Gln Val Pro Arg Pro Leu Gln Leu Phe Ser
           50           55           60
Ala Lys Glu Leu Arg Asp Ser Ser Ile Asp Thr His Gln Tyr His Glu
65           70           75           80
Gly Leu Ser Lys Ala Thr Gln Asp Gln Ile Leu Gln Thr Leu Ile Gln
           85           90           95
Arg Val Arg Arg Gln Asn Leu Leu Ser Val Val Pro Pro Ser Gln Phe
           100          105          110
Asn Phe Ala His Ser Gly Phe Gln Leu Glu Asp Ile Ser Thr Ser Gln
           115          120          125
Arg Phe Met Leu Gly Phe Ala Gly Arg Arg Thr Ser Lys Pro Ala Met
           130          135          140
Ala Gly His Tyr Leu Leu Asn Ile Ser Thr Tyr Gly Arg Gly Ser Glu
145          150          155          160
Ser Phe Arg Arg Thr His Ser Val Asn Pro Glu Asp Arg Phe Cys Leu
           165          170          175
Ser Ser Pro Thr Glu Ala Leu Lys Met Gly Tyr Thr Asn Cys Lys Asn
           180          185          190

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&lt;210&gt; 3453

&lt;211&gt; 477

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3453

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477

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&lt;210&gt; 3454

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3454

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 Pro Val Ala Gln Gly Leu Lys Glu Ala Leu Val Asp Thr Leu Thr Gly  
 35 40 45  
 Ile Leu Ser Pro Val Gln Glu Val Arg Ala Ala Ala Glu Glu Gln Ile  
 50 55 60  
 Lys Val Leu Glu Val Thr Glu Glu Phe Gly Val His Leu Ala Glu Leu  
 65 70 75 80  
 Thr Val Asp Pro Gln Gly Ala Leu Ala Ile Arg Gln Leu Ala Ser Val  
 85 90 95  
 Ile Leu Lys Gln Tyr Val Glu Thr His Trp Cys Ala Gln Ser Glu Lys  
 100 105 110  
 Phe Arg Pro Pro Glu Thr Thr Glu Arg Ala Lys Ile Val Ile Arg Glu  
 115 120 125  
 Leu Leu Pro Asn Gly Leu Arg Glu Ser Ile Ser Lys Val Arg Ser Ser  
 130 135 140  
 Val Ala Tyr Ala Val Ser Ala Ile Ala His Trp Asp Trp Pro Glu  
 145 150 155

&lt;210&gt; 3455

&lt;211&gt; 4886

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3455

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<210> 3456

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3456

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 35 40 45  
 Glu Val Leu Gln Asp Ser Leu Asp Arg Cys Tyr Ser Thr Pro Ser Met  
 50 55 60  
 Tyr Phe Glu Leu Pro Asp Ser Phe Gln His Tyr Arg Ser Val Phe Tyr  
 65 70 75 80  
 Ser Phe Glu Glu Glu His Ile Ser Phe Ala Leu Tyr Val Asp Asn Arg  
 85 90 95  
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 Val Ile Phe Pro Gln



115

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 <212> DNA  
 <213> Homo sapiens

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 <211> 61  
 <212> PRT  
 <213> Homo sapiens

<400> 3458  
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 Ile Cys Ala Cys Leu Phe Thr His Arg Trp Glu Cys Arg Val Cys Ile  
 35 40 45  
 Leu Cys Xaa Cys Thr Cys Thr Gln Ala Xaa Ala Gly Lys  
 50 55 60

<210> 3459  
 <211> 592  
 <212> DNA  
 <213> Homo sapiens

<400> 3459  
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 300  
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<210> 3460

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3460

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 Gly Pro Ser Leu Cys Ala Ala Ser Val Cys Leu Leu Gln Asn Lys His  
 35 40 45  
 His Ala Pro Ser Trp Ala Glu Ala Pro Ala Asp Ser Pro Arg Ala Leu  
 50 55 60  
 Gln Ala Cys Pro Val Leu Cys Gln Ala Gly Pro Gly His Val Pro Ala  
 65 70 75 80  
 Pro Gly Ala Gly Leu Gln Arg Gly Gln Trp Ser Ala Leu Lys Thr Val  
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 Ile Pro Ala Arg Pro Ala Leu Pro Cys Ser Ala Arg Gly Gln Phe Glu  
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 Leu Lys Leu  
 115

<210> 3461

<211> 474

<212> DNA

<213> Homo sapiens

<400> 3461

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 180

ctggaagcca gcacgagggt ggctgggatg ctggcaagcc tcctcggggg ccaactggctc  
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<210> 3462  
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 <212> PRT  
 <213> Homo sapiens

<400> 3462  
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 Trp Leu Ala Leu Ala Leu Leu Ile Ala Met Thr Leu Tyr Ala Ala Phe  
 35 40 45  
 Cys Phe Gly Glu Thr Leu Lys Glu Pro Lys Ser Thr Arg Leu Phe Thr  
 50 55 60  
 Phe Arg His His Arg Ser Ile Val Gln Leu Tyr Val Ala Pro Ala Pro  
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 Val Ile Thr Val His  
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<210> 3463  
 <211> 1734  
 <212> DNA  
 <213> Homo sapiens

<400> 3463  
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&lt;210&gt; 3464

&lt;211&gt; 434

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3464

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 Leu Glu Asp Pro Ala Val Pro Arg Leu Thr Ala Ala Leu Pro Ala Ala  
                   20                    25                    30  
 Glu Leu Pro Glu Arg Arg Arg Gln Gln Arg Gln Gly Lys His His

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Pro Asn Tyr Leu Met Ala Asn Glu Arg Met Asn Leu Met Asn Met Ala
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Lys Leu Ser Ile Lys Gly Leu Ile Glu Ser Ala Leu Asn Leu Gly Arg
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Thr Leu Asp Ser Asp Tyr Ala Pro Leu Gln Phe Phe Val Val Met
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Glu His Cys Leu Lys His Gly Leu Lys Ala Lys Lys Thr Phe Leu Gly
 100          105          110
Gln Asn Lys Ser Phe Trp Gly Pro Leu Glu Leu Val Glu Lys Leu Val
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Gln Lys Lys Leu Ser Glu Tyr Met Lys Ala Leu Ile Asn Lys Lys Glu
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Gly Ala Ile Ile Ala Gly Leu Leu Val Gly Leu Asn Val Ile Asp Ala
 195          200          205
Asn Phe Cys Met Lys Gly Glu Asp Leu Asp Ser Gln Val Gly Val Ile
 210          215          220
Asp Phe Ser Met Tyr Leu Lys Asp Gly Asn Ser Ser Lys Gly Thr Glu
 225          230          235          240
Gly Asp Gly Gln Ile Thr Ala Ile Leu Asp Gln Lys Asn Tyr Val Glu
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Glu Leu Asn Arg His Leu Asn Ala Thr Val Asn Asn Leu Gln Ala Lys
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 275          280          285
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Gln Asp Arg Thr Ala Glu Gly Gln Ala Leu Ser Glu Ala Arg Lys His
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Gln Leu Asp Asp Leu Arg Ala Leu Lys His Glu Leu Ala Phe Lys Leu
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Gln Arg

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&lt;210&gt; 3465

&lt;211&gt; 2904

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3465

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<211> 315  
<212> PRT  
<213> Homo sapiens

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 Leu Leu Glu Gly Met Leu Phe Ser Leu Lys Tyr Leu Gly Met Thr Leu  
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 Val Glu Gln Pro Lys Gly Glu Glu Leu Ser Ala Ala Ala Ile Lys Arg  
 65 70 75 80  
 Ile Val Ala Thr Ala Lys Ala Ser Gly Lys Lys Leu Gln Lys Val Thr  
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 Leu Lys Val Ser Pro Arg Gly Ile Ile Leu Thr Asp Asn Leu Thr Asn  
 100 105 110  
 Gln Leu Ile Glu Asn Val Ser Ile Tyr Arg Ile Ser Tyr Cys Thr Ala  
 115 120 125  
 Asp Lys Met His Asp Lys Val Phe Ala Tyr Ile Ala Gln Ser Gln His  
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 Glu Phe Trp Gln Val Ser Lys Glu Glu Lys Glu Lys Arg Asp Lys Ala  
 180 185 190  
 Ser Gln Glu Gly Gly Asp Val Leu Gly Ala Arg Gln Asp Cys Thr Pro  
 195 200 205  
 Pro Leu Lys Ser Leu Val Ala Thr Gly Asn Leu Leu Asp Leu Glu Glu  
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 Thr Ala Lys Ala Pro Leu Ser Thr Val Ser Ala Asn Thr Thr Asn Met  
 225 230 235 240  
 Asp Glu Val Pro Arg Pro Gln Ala Leu Ser Gly Ser Ser Val Val Trp  
 245 250 255  
 Glu Leu Asp Asp Gly Leu Asp Glu Ala Phe Ser Arg Leu Ala Gln Ser  
 260 265 270  
 Arg Thr Asn Pro Gln Val Leu Asp Thr Gly Leu Thr Ala Gln Asp Met  
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 His Tyr Ala Gln Cys Leu Ser Pro Val Asp Trp Asp Lys Pro Asp Ser  
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<210> 3467  
 <211> 638  
 <212> DNA  
 <213> Homo sapiens

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 180



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<210> 3468

<211> 88

<212> PRT

<213> Homo sapiens

<400> 3468

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			20				25					30			
Trp	Leu	Cys	Tyr	Thr	Ser	Cys	Tyr	Gln	Gln	Asn	Arg	Val	Ser	Leu	Gly
		35				40					45				
Gln	Ser	Cys	Gly	Tyr	Thr	Ser	Val	Ser	Gln	Asp	Phe	Leu	Cys	Gln	Arg
		50			55					60					
Ala	Val	Lys	Leu	Arg	Thr	Lys	Val	Ile	Lys	Ile	Gln	Leu	Tyr	Tyr	Trp
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<210> 3469

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<212> DNA

<213> Homo sapiens

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1710

&lt;210&gt; 3470

&lt;211&gt; 322

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3470

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Pro Asp Glu Asp Leu Ser His Arg Asn Lys Glu Pro Pro Ala Pro Ala
35           40           45
Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala
50           55           60
Arg Val Glu Lys Ile Phe Thr Pro Ala Ala Pro Val His Thr Asn Lys
65           70           75           80
Glu Asp Pro Ala Thr Gln Thr Asn Leu Gly Phe Ile His Ala Phe Val
85           90           95
Ala Ala Ile Ser Val Ile Ile Val Ser Glu Leu Gly Asp Lys Thr Phe
100          105          110
Phe Ile Ala Ala Ile Met Ala Met Arg Tyr Asn Arg Leu Thr Val Leu
115          120          125
Ala Gly Ala Met Leu Ala Leu Gly Leu Met Thr Cys Leu Ser Val Leu
130          135          140
Phe Gly Tyr Ala Thr Thr Val Ile Pro Arg Val Tyr Thr Tyr Tyr Val
145          150          155          160
Ser Thr Val Leu Phe Ala Ile Phe Gly Ile Arg Met Leu Arg Glu Gly
165          170          175
Leu Lys Met Ser Pro Asp Glu Gly Gln Glu Leu Glu Glu Val Gln
180          185          190
Ala Glu Leu Lys Lys Lys Asp Glu Glu Phe Gln Arg Thr Lys Leu Leu
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Asn Gly Pro Gly Asp Val Glu Thr Gly Thr Ser Ile Thr Val Pro Gln
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Lys Lys Trp Leu His Phe Ile Ser Pro Ile Phe Val Gln Ala Leu Thr
225          230          235          240
Leu Thr Phe Leu Ala Glu Trp Gly Asp Arg Ser Gln Leu Thr Thr Ile
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260          265          270
Val Gly His Cys Leu Cys Thr Gly Leu Ala Val Ile Gly Gly Arg Met
275          280          285
Ile Ala Gln Lys Ile Ser Val Arg Thr Val Thr Ile Ile Gly Gly Ile
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Gly Phe

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 <211> 2335  
 <212> DNA  
 <213> Homo sapiens

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<210> 3472

<211> 631

<212> PRT

<213> Homo sapiens

<400> 3472

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 Ile Leu Pro Ser Leu Phe Met Arg Cys Thr Thr Asp Leu Asn Arg Lys  
 50 55 60  
 Asp Lys Phe Pro Ala Ile Thr His Leu Lys Phe Leu Ala Arg Asp Met  
 65 70 75 80  
 Ser Glu Gln Val Leu Leu Cys Ala Ser Ser Gln Thr Ser Ser Ile Val  
 85 90 95  
 Glu Cys Trp Ser Leu Arg Lys Glu Gly Leu Pro Val Asn Asn Ile Phe  
 100 105 110  
 Gln Gln Ile Ser Pro Val Val Gly Asp Lys Gln Pro Thr Ile Leu Lys  
 115 120 125  
 Trp Arg Ile Leu Ser Ala Thr Asn Asp Leu Asp Arg Val Ser Ala Val  
 130 135 140  
 Ala Leu Pro Lys Leu Pro Ile Ser Leu Thr Asn Thr Asp Leu Lys Val  
 145 150 155 160  
 Ala Ser Asp Thr Gln Phe Tyr Pro Gly Leu Gly Leu Ala Leu Ala Phe  
 165 170 175  
 His Asp Gly Ser Val His Ile Val His Arg Leu Ser Leu Gln Thr Met  
 180 185 190  
 Ala Val Phe Tyr Ser Ser Ala Ala Pro Arg Pro Val Asp Glu Pro Ala  
 195 200 205  
 Met Lys Arg Pro Arg Thr Ala Gly Pro Ala Val His Leu Lys Ala Met  
 210 215 220  
 Gln Leu Ser Trp Thr Ser Leu Ala Leu Val Gly Ile Asp Ser His Gly

```

225          230          235          240
Lys Leu Ser Val Leu Arg Leu Ser Pro Ser Met Gly His Pro Leu Glu
          245          250          255
Val Gly Leu Ala Leu Arg His Leu Leu Phe Leu Leu Glu Tyr Cys Met
          260          265          270
Val Thr Gly Tyr Asp Trp Trp Asp Ile Leu Leu His Val Gln Pro Ser
          275          280          285
Met Val Gln Ser Leu Val Glu Lys Leu His Glu Glu Tyr Thr Arg Gln
          290          295          300
Thr Ala Ala Leu Gln Gln Val Leu Ser Thr Arg Ile Leu Ala Met Lys
305          310          315          320
Ala Ser Leu Cys Lys Leu Ser Pro Cys Thr Val Thr Arg Val Cys Asp
          325          330          335
Tyr His Thr Lys Leu Phe Leu Ile Ala Ile Ser Ser Thr Leu Lys Ser
          340          345          350
Leu Leu Arg Pro His Phe Leu Asn Thr Pro Asp Lys Ser Pro Gly Asp
          355          360          365
Arg Leu Thr Glu Ile Cys Thr Lys Ile Thr Asp Val Asp Ile Asp Lys
          370          375          380
Val Met Ile Asn Leu Lys Thr Glu Glu Phe Val Leu Asp Met Asn Thr
385          390          395          400
Leu Gln Ala Leu Gln Gln Leu Leu Gln Trp Val Gly Asp Phe Val Leu
          405          410          415
Tyr Leu Leu Ala Ser Leu Pro Asn Gln Gly Ser Leu Leu Arg Pro Gly
          420          425          430
His Ser Phe Leu Arg Asp Gly Thr Ser Leu Gly Met Leu Arg Glu Leu
          435          440          445
Met Val Val Ile Arg Ile Trp Gly Leu Leu Lys Pro Ser Cys Leu Pro
          450          455          460
Val Tyr Thr Ala Thr Ser Asp Thr Gln Asp Ser Met Ser Leu Leu Phe
          465          470          475          480
Arg Leu Leu Thr Lys Leu Trp Ile Cys Cys Arg Asp Glu Gly Pro Ala
          485          490          495
Ser Glu Pro Asp Glu Ala Leu Val Asp Glu Cys Cys Leu Leu Pro Ser
          500          505          510
Gln Leu Leu Ile Pro Ser Leu Asp Trp Leu Pro Ala Ser Asp Gly Leu
          515          520          525
Val Ser Arg Leu Gln Pro Lys Gln Pro Leu Arg Leu Gln Phe Gly Arg
          530          535          540
Ala Pro Thr Leu Pro Gly Ser Ala Ala Thr Leu Gln Leu Asp Gly Leu
          545          550          555          560
Ala Arg Ala Pro Gly Gln Pro Lys Ile Asp His Leu Arg Arg Leu His
          565          570          575
Leu Gly Ala Cys Pro Thr Glu Glu Cys Lys Ala Cys Thr Arg Cys Gly
          580          585          590
Cys Val Thr Met Leu Lys Ser Pro Asn Arg Thr Thr Ala Val Lys Gln
          595          600          605
Trp Glu Gln Arg Trp Ile Lys Asn Cys Leu Cys Gly Gly Leu Trp Trp
          610          615          620
Arg Val Pro Leu Ser Tyr Pro
625          630

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&lt;210&gt; 3473

&lt;211&gt; 1660

<212> DNA  
<213> Homo sapiens

<400> 3473  
taatgtgccc ccttagaagg acgtgtttct tggtttcaca cgtttgagtc tatgcaccag  
60  
ctggattttc acaaaggggt ctgaaccttg gctgttggcg agggcaaagt gggcgtggcg  
120  
gcgccatgcc cgggccggac tgagtgcgcg cgggcgagaa tggcgtacat ccagttggaa  
180  
ccattaaacg agggttttct ttctagaatc tctggtctgc tgctgtgcag atggacctgc  
240  
cggcactgct gtcagaagtg ctacgagtc agctgttgcc agtcaagtga ggatgaagtt  
300  
gaaattctgg gacctttccc tgctcagacc cctccctggc tgatggccag ccggagcagt  
360  
gacaaggatg gtgactctgt ccacacggcc agcgaagtcc cgctgacccc acggaccaat  
420  
tccccggatg gaagacgctc gtcctcagac acatccaagt ctacatacag cctgacgcgg  
480  
aggatttctga gtcttgagtc aagacgtccc agctctccac tcatcgatat taaacccatc  
540  
gagtttggcg ttctcagcgc caagaaggag cccatccaac cttcgggtgct cagacggacc  
600  
tataaccccg acgactatct caggaagtcc gaaccccacc tgtactccct cgactccaac  
660  
agcgacgatg tggactctct gacagacgag gagatcctgt ccaagtacca gctgggcatg  
720  
ctgcacttca gcactcagta cgacctgctg cacaaccacc tcaccgtgcg cgtgatcgag  
780  
gccagggacc tgccacctcc catctcccac gatggtctgc gccaggacat ggcgcactcc  
840  
aaccctctacg tcaagatctg tctcctgcca gaccagaaga actcaaagca gaccggggtc  
900  
aaacgcaaga ccagaaagcc cgtgttttag gagcgctaca ccttcgagat ccccttctg  
960  
gaggcccaaga ggaggaccct gctcctgacc gtggtggatt ttgataagtt cccccccac  
1020  
tgtgtcattg gaaaagtctc tgtgcctttg tgtgaagttg acctgggtcaa gggcgggac  
1080  
tgggtggaagg cgctgattcc cagttctcag aatgaagtgg agctggggga gctgcttctg  
1140  
tcactgaatt atctcccaag tgctggcaga ctgaatgttg atgtcattcg agccaagcaa  
1200  
cttcttcaga cagatgtgag ccaagggtca gacccctttg tgaaaatcca gctgggtgcat  
1260  
ggactcaaac ttgtgaaaac caagaagacg tccttcttaa ggggcacaaat tgatccttcc  
1320  
tacaatgaat ccttcagctt caaagttccc caagaagaac tggaaaatgc cagcctagtg  
1380  
tttacagttt tcggccacaa catgaagagc agcaatgact tcacggggag gatcgctatt  
1440  
ggccagtact cttcaggccc ctctgagacc aaccactgga ggcgcatgct caacacgcac  
1500

cgcacagccg tggagcagtg gcatagcctg aggtcccagag ctgagtgtga ccgcgtgtct  
 1560  
 cctgcctccc tggaggtgac ctgagggctg cagggaaggc agctttcatt tgtttaaaaa  
 1620  
 aaaaaagacg gaaaaaaatg tgtcacatac tattacatcc  
 1660

<210> 3474  
 <211> 474  
 <212> PRT  
 <213> Homo sapiens

<400> 3474  
 Met Ala Tyr Ile Gln Leu Glu Pro Leu Asn Glu Gly Phe Leu Ser Arg  
 1 5 10 15  
 Ile Ser Gly Leu Leu Cys Arg Trp Thr Cys Arg His Cys Cys Gln  
 20 25 30  
 Lys Cys Tyr Glu Ser Ser Cys Cys Gln Ser Ser Glu Asp Glu Val Glu  
 35 40 45  
 Ile Leu Gly Pro Phe Pro Ala Gln Thr Pro Pro Trp Leu Met Ala Ser  
 50 55 60  
 Arg Ser Ser Asp Lys Asp Gly Asp Ser Val His Thr Ala Ser Glu Val  
 65 70 75 80  
 Pro Leu Thr Pro Arg Thr Asn Ser Pro Asp Gly Arg Arg Ser Ser Ser  
 85 90 95  
 Asp Thr Ser Lys Ser Thr Tyr Ser Leu Thr Arg Arg Ile Ser Ser Leu  
 100 105 110  
 Glu Ser Arg Arg Pro Ser Ser Pro Leu Ile Asp Ile Lys Pro Ile Glu  
 115 120 125  
 Phe Gly Val Leu Ser Ala Lys Lys Glu Pro Ile Gln Pro Ser Val Leu  
 130 135 140  
 Arg Arg Thr Tyr Asn Pro Asp Asp Tyr Phe Arg Lys Phe Glu Pro His  
 145 150 155 160  
 Leu Tyr Ser Leu Asp Ser Asn Ser Asp Asp Val Asp Ser Leu Thr Asp  
 165 170 175  
 Glu Glu Ile Leu Ser Lys Tyr Gln Leu Gly Met Leu His Phe Ser Thr  
 180 185 190  
 Gln Tyr Asp Leu Leu His Asn His Leu Thr Val Arg Val Ile Glu Ala  
 195 200 205  
 Arg Asp Leu Pro Pro Pro Ile Ser His Asp Gly Ser Arg Gln Asp Met  
 210 215 220  
 Ala His Ser Asn Pro Tyr Val Lys Ile Cys Leu Leu Pro Asp Gln Lys  
 225 230 235 240  
 Asn Ser Lys Gln Thr Gly Val Lys Arg Lys Thr Gln Lys Pro Val Phe  
 245 250 255  
 Glu Glu Arg Tyr Thr Phe Glu Ile Pro Phe Leu Glu Ala Gln Arg Arg  
 260 265 270  
 Thr Leu Leu Thr Val Val Asp Phe Asp Lys Phe Ser Arg His Cys  
 275 280 285  
 Val Ile Gly Lys Val Ser Val Pro Leu Cys Glu Val Asp Leu Val Lys  
 290 295 300  
 Gly Gly His Trp Trp Lys Ala Leu Ile Pro Ser Ser Gln Asn Glu Val  
 305 310 315 320  
 Glu Leu Gly Glu Leu Leu Ser Leu Asn Tyr Leu Pro Ser Ala Gly



```

          325          330          335
Arg Leu Asn Val Asp Val Ile Arg Ala Lys Gln Leu Leu Gln Thr Asp
          340          345          350
Val Ser Gln Gly Ser Asp Pro Phe Val Lys Ile Gln Leu Val His Gly
          355          360          365
Leu Lys Leu Val Lys Thr Lys Lys Thr Ser Phe Leu Arg Gly Thr Ile
          370          375          380
Asp Pro Phe Tyr Asn Glu Ser Phe Ser Phe Lys Val Pro Gln Glu Glu
          385          390          395          400
Leu Glu Asn Ala Ser Leu Val Phe Thr Val Phe Gly His Asn Met Lys
          405          410          415
Ser Ser Asn Asp Phe Ile Gly Arg Ile Val Ile Gly Gln Tyr Ser Ser
          420          425          430
Gly Pro Ser Glu Thr Asn His Trp Arg Arg Met Leu Asn Thr His Arg
          435          440          445
Thr Ala Val Glu Gln Trp His Ser Leu Arg Ser Arg Ala Glu Cys Asp
          450          455          460
Arg Val Ser Pro Ala Ser Leu Glu Val Thr
          465          470

```

<210> 3475  
 <211> 514  
 <212> DNA  
 <213> Homo sapiens

```

<400> 3475
acgcgtctctgg agggctgggt cttctgcacg cccgcccgca agctgtctctg gctgggtgctg
60
cagcccttct tctactcact acggccgctc tgcgtccacc ccaaggccgt gacccgcatg
120
gaggtgctca acacgtgggt gcagctggcg gccgacctgg ccattcttgc cctttggggg
180
ctcaagcccg tgggtctacct gctggccagc tcttctctgg gcctgggcct gcaccccatc
240
tcggggccact tcgtggccga gcactacatg ttcctcaagg gccacgagac ctactcctac
300
tatgggcctc tcaactggat caccttcaat gtgggctacc acgtggagca ccacgacttc
360
cccagcatcc cgggtacaa cctgccgctg gtgcggaaga tcgcgcccga gtactacgac
420
cacctgccgc agcaccactc ctgggtgaag gtgctctggg attttgtgtt tgaggactcc
480
ctggggccct atgccagggt gaagcgggtg taca
514

```

<210> 3476  
 <211> 171  
 <212> PRT  
 <213> Homo sapiens

```

<400> 3476
Thr Arg Leu Glu Gly Trp Phe Phe Cys Thr Pro Ala Arg Lys Leu Leu
1      5      10      15
Trp Leu Val Leu Gln Pro Phe Phe Tyr Ser Leu Arg Pro Leu Cys Val

```

```

      20      25      30
His Pro Lys Ala Val Thr Arg Met Glu Val Leu Asn Thr Leu Val Gln
      35      40      45
Leu Ala Ala Asp Leu Ala Ile Phe Ala Leu Trp Gly Leu Lys Pro Val
      50      55      60
Val Tyr Leu Leu Ala Ser Ser Phe Leu Gly Leu Gly Leu His Pro Ile
      65      70      75      80
Ser Gly His Phe Val Ala Glu His Tyr Met Phe Leu Lys Gly His Glu
      85      90      95
Thr Tyr Ser Tyr Tyr Gly Pro Leu Asn Trp Ile Thr Phe Asn Val Gly
      100      105      110
Tyr His Val Glu His His Asp Phe Pro Ser Ile Pro Gly Tyr Asn Leu
      115      120      125
Pro Leu Val Arg Lys Ile Ala Pro Glu Tyr Tyr Asp His Leu Pro Gln
      130      135      140
His His Ser Trp Val Lys Val Leu Trp Asp Phe Val Phe Glu Asp Ser
      145      150      155      160
Leu Gly Pro Tyr Ala Arg Val Lys Arg Val Tyr
      165      170

```

&lt;210&gt; 3477

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3477

```

gcgcgcctcg gtgcctgcc cggcgggtctc cgggtcctcg tccagaccgg ccaccggagc
60
ttgacctctc gcatcgacc ttccatggga cttaatgaag agcagaaaga atttcaaaaa
120
gtggcctttg actttgtctg cagagagatg gctccaaata tggcagagtg ggaccagaag
180
gtaggcggtt ttcttgtgct tagacgttct aacaacagat gtctcaggca gacctttatc
240
tttgtctccc gataatgtaa ttgttaaatg tctctctccac ttaccaactc ttactgcaag
300
tgagaatacc ggtagtggat gatttttctc agaaggcatc ctgatcatct tgtaca
356

```

&lt;210&gt; 3478

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3478

```

Met Ile Arg Met Pro Ser Arg Lys Asn His Pro Leu Pro Val Phe Ser
1      5      10      15
Leu Ala Val Arg Val Gly Lys Trp Arg Arg His Leu Thr Ile Thr Leu
20      25      30
Ser Gly Asp Lys Asp Lys Gly Leu Pro Glu Thr Ser Val Val Arg Thr
35      40      45
Ser Lys His Lys Lys Asn Ala Tyr Leu Leu Val Pro Leu Cys His Ile
50      55      60
Trp Ser His Leu Ser Gly Ser Lys Val Lys Gly His Phe Leu Lys Phe

```

65                      70                      75                      80  
 Phe Leu Leu Phe Ile Lys Ser His Gly Arg Val Asp Ala Gly Gly Gln  
                                  85                      90                      95  
 Ala Pro Val Ala Gly Leu Asp Glu Asp Pro Glu Thr Ala Gly Gln Ala  
                                  100                      105                      110  
 Ala Glu Ala Arg  
                                  115

<210> 3479

<211> 797

<212> DNA

<213> Homo sapiens

<400> 3479

ncctttccaac ccagcctgaa ggggaaagcc acctcggagg acaccctcaa tetaaggaga  
 60  
 taccgccggt ctgacaggat catgctgcag aagtggcaga aaaggacat cagcaatttt  
 120  
 gagtatctca tgtacctcaa caccgcggct ggagaaacct gcaatgacta catgcagtac  
 180  
 ccagtgttcc cctgggtcct cgcagactac acctcagaga cattgaactt ggcaaattccg  
 240  
 aagattttcc gggatcttcc aaagcccatg ggggctcaga ccaaggaaag gaagctgaaa  
 300  
 tttatccaga ggtttaaaga agttgagaaa actgaaggag acatgactgc ccagtgccac  
 360  
 tactacaccc actactcctc ggccatcacc gtggcctcct acctgggtccg gatgccaccc  
 420  
 ttcacccagg ccttctgcgc tctgcagggt agctgctgcc actctctgta cacacacaca  
 480  
 cacacacaca cacacacata cgccctgtatc acaagactaa gacctgtgct tgaacaaaga  
 540  
 caggatgcct ctgctaaaaa cttagtcatt agccagtgat tcccagttga cattggctcc  
 600  
 aggattcttg ctcaccagcc aaggcaggct gttcttcctc agttacacct gcacatctgc  
 660  
 ccaacaaagt cttgcaaaat gattctaaaa aataagaaat gagacatgaa aaaaatgatt  
 720  
 taacataaat aagatttagt ggaaaaagaa aaagcaggaa acttggagac tagaaaggca  
 780  
 ggcgggtcaag gattaga  
 797

<210> 3480

<211> 192

<212> PRT

<213> Homo sapiens

<400> 3480

Xaa Phe Gln Pro Ser Leu Lys Gly Lys Ala Thr Ser Glu Asp Thr Leu  
 1                      5                      10                      15  
 Asn Leu Arg Arg Tyr Pro Gly Ser Asp Arg Ile Met Leu Gln Lys Trp  
                                  20                      25                      30  
 Gln Lys Arg Asp Ile Ser Asn Phe Glu Tyr Leu Met Tyr Leu Asn Thr

35					40					45					
Ala	Ala	Gly	Arg	Thr	Cys	Asn	Asp	Tyr	Met	Gln	Tyr	Pro	Val	Phe	Pro
50					55					60					
Trp	Val	Leu	Ala	Asp	Tyr	Thr	Ser	Glu	Thr	Leu	Asn	Leu	Ala	Asn	Pro
65					70					75					
Lys	Ile	Phe	Arg	Asp	Leu	Ser	Lys	Pro	Met	Gly	Ala	Gln	Thr	Lys	Glu
85					90					95					
Arg	Lys	Leu	Lys	Phe	Ile	Gln	Arg	Phe	Lys	Glu	Val	Glu	Lys	Thr	Glu
100					105					110					
Gly	Asp	Met	Thr	Ala	Gln	Cys	His	Tyr	Tyr	Thr	His	Tyr	Ser	Ser	Ala
115					120					125					
Ile	Ile	Val	Ala	Ser	Tyr	Leu	Val	Arg	Met	Pro	Pro	Phe	Thr	Gln	Ala
130					135					140					
Phe	Cys	Ala	Leu	Gln	Val	Ser	Cys	Cys	His	Ser	Leu	Tyr	Thr	His	Thr
145					150					155					
His	Thr	His	Thr	His	Thr	Tyr	Ala	Cys	Ile	Thr	Arg	Leu	Arg	Pro	Val
165					170					175					
Leu	Glu	Gln	Arg	Gln	Asp	Ala	Ser	Ala	Lys	Asn	Leu	Val	Ile	Ser	Gln
180					185					190					

```
<210> 3481
<211> 1794
<212> DNA
<213> Homo sapiens
```

<400> 3481  
 nncaacgttg tcaccacctc agcaactata agaagcgtgt ggcagccttg gaagccacgc  
 60  
 aaaagcccag cacttcccag agccagggac tgacacaca gaaagtctgc aagcaatgcc  
 120  
 atgaggctct gaccagaggg tcttctgcc aatgcctccaa gtgggtcacc cctcagctct  
 180  
 gcagaccctg cgggtgctgg agccaccatg gagagtaggt gctacggctg cgctgtcaag  
 240  
 ttaccctct tcaagaagga gtacggctgt aagaattgtg gcagngctt ctgttcaggc  
 300  
 tgcctaagct tcagtgcagc agtgcctcgg actgggaaca cccaacagaa agtctgcaag  
 360  
 caatgccatg aggtcctgac cagagggtct tctgccaatg cctccaagtg gtcaccacct  
 420  
 cagaactata agaagcgtgt ggcagccttg gaagccaagc aaaagcccag cacttcccag  
 480  
 agccagggac tgacacgaca agaccagatg attgctgagc gcctagcacg actccgccag  
 540  
 gagaacaagc ccaagttagt cccctcacag gcagagatag aggcacggct ggctgcctta  
 600  
 aaggatgaac gtcagggttc catccttcc acccaggaaa tggaggcacg acttgcacg  
 660  
 ttgagggcca gagtcttacc ttctcaaacc cccagcccg gcacatcaca caccggacac  
 720  
 caggacccaa gccccagcaga cacaggatct gctaacgcag ctggcagctg aggtggctat  
 780  
 cgatgaaagc tggaaaaggg gagggcccag tgcctctctc cagaatgatc tcaaccaggg  
 840

tggcccaggg agcactaatt ccaagaggca ggccacttgg ttcttggaga aggagaagag  
 900  
 cagactgctg gctgaggcag cacttgagtt gcgggaggag aacacgaggc aggaacggat  
 960  
 tctggccctg gccaaagcgac tagccatgct gcggggacag gaccccgaga gagtgaccct  
 1020  
 ccaggactat cgccctccag acagtgatga cgacgaggat gaggagacag ccatccaaag  
 1080  
 agtcctgcag cagctcactg aagaagcttc cctggatgag gcaagtggct ttaacatccc  
 1140  
 tgcagagcag gcttctcgac cctggacgca accccgcggg gcagagcctg aggccccagga  
 1200  
 tgttgacccc aggcctgagg ctgaggaaga ggagctcccc tgggtctgca tctgcaatga  
 1260  
 ggatgccacc ctacgctgcg ctggctgcca tggggacctc ttctgtgccc gctgcttccg  
 1320  
 agagggccat gatgcctttg agcttaaaga gcaccagaca tctgcctact ctctccacg  
 1380  
 tgcaggccaa gagcactgaa gacaccctgg tcctcccgga agggcagtcc cacaggcagc  
 1440  
 ggcacccatt tctgggcccc gccacaggac gtccgatggg agagcttgct tggctctact  
 1500  
 gatgatggat aggcccttc ctgagccttg gtgtccctgg aatgaggaat gattctccat  
 1560  
 tcgagagaat gactgggagg gaagaagtcg gggccctcct attagaagcc cagactggaa  
 1620  
 gtgagaggca tgatggggag agaccagact gaatctacgg gtgagccctg taacctggct  
 1680  
 ctagggcaca ggccctcccc ctggcactta gtgggtctaa taaagtatgt tgattcattg  
 1740  
 ggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa  
 1794

&lt;210&gt; 3482

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3482

Met Pro Pro Ser Gly His His Leu Ser Ser Ala Asp Pro Ala Val Leu  
 1 5 10 15  
 Gly Ala Thr Met Glu Ser Arg Cys Tyr Gly Cys Ala Val Lys Phe Thr  
 20 25 30  
 Leu Phe Lys Lys Glu Tyr Gly Cys Lys Asn Cys Gly Arg Xaa Phe Cys  
 35 40 45  
 Ser Gly Cys Leu Ser Phe Ser Ala Ala Val Pro Arg Thr Gly Asn Thr  
 50 55 60  
 Gln Gln Lys Val Cys Lys Gln Cys His Glu Val Leu Thr Arg Gly Ser  
 65 70 75 80  
 Ser Ala Asn Ala Ser Lys Trp Ser Pro Pro Gln Asn Tyr Lys Lys Arg  
 85 90 95  
 Val Ala Ala Leu Glu Ala Lys Gln Lys Pro Ser Thr Ser Gln Ser Gln  
 100 105 110  
 Gly Leu Thr Arg Gln Asp Gln Met Ile Ala Glu Arg Leu Ala Arg Leu

```

      115              120              125
Arg Gln Glu Asn Lys Pro Lys Leu Val Pro Ser Gln Ala Glu Ile Glu
      130              135              140
Ala Arg Leu Ala Ala Leu Lys Asp Glu Arg Gln Gly Ser Ile Pro Ser
      145              150              155              160
Thr Gln Glu Met Glu Ala Arg Leu Ala Ala Leu Gln Gly Arg Val Leu
      165              170              175
Pro Ser Gln Thr Pro Gln Pro Gly Thr Ser His Thr Gly His Gln Asp
      180              185              190
Pro Ser Pro Ala Asp Thr Gly Ser Ala Asn Ala Ala Gly Ser
      195              200              205

```

<210> 3483  
 <211> 477  
 <212> DNA  
 <213> Homo sapiens

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<400> 3483
ncggccgcg cgcggaacgg cgctcccgcc cccaccatgg gcaacagcgc gagccgcaac
60
gacttcgagt ggggtctacac cgaccagccg cacacgcagc ggcgcaagga gatactggcc
120
aagtaccggg ccatcaaggc cctgatgcgg ccagaccgcg gcctcaagtg ggcggggctg
180
gtgctggtgc tgggtcagat gctggcctgc tggctggtgc gcgggctggc ctggcgctgg
240
ctgctgttct gggcctacgc ctttggtggc tgcgtgaacc actcgctgac gctggccatc
300
cacgacatct cgcacaacgc ggccctcggc acggggccgtg cggcacgcaa ccgctggctg
360
gccgtgttcg ccaacctgcc cgtgggtgtg ccctacgccg cctccttcaa gaagtaccac
420
gtggaccacc accgctacct gggcggcgac ggactggacg tggacgtgcc cagcgct
477

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<210> 3484  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

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<400> 3484
Met Gly Asn Ser Ala Ser Arg Asn Asp Phe Glu Trp Val Tyr Thr Asp
1      5      10      15
Gln Pro His Thr Gln Arg Arg Lys Glu Ile Leu Ala Lys Tyr Pro Ala
20     25     30
Ile Lys Ala Leu Met Arg Pro Asp Pro Arg Leu Lys Trp Ala Gly Leu
35     40     45
Val Leu Val Leu Val Gln Met Leu Ala Cys Trp Leu Val Arg Gly Leu
50     55     60
Ala Trp Arg Trp Leu Leu Phe Trp Ala Tyr Ala Phe Gly Gly Cys Val
65     70     75     80
Asn His Ser Leu Thr Leu Ala Ile His Asp Ile Ser His Asn Ala Ala
85     90     95
Phe Gly Thr Gly Arg Ala Ala Arg Asn Arg Trp Leu Ala Val Phe Ala

```

```

      100      105      110
Asn Leu Pro Val Gly Val Pro Tyr Ala Ala Ser Phe Lys Lys Tyr His
      115      120      125
Val Asp His His Arg Tyr Leu Gly Gly Asp Gly Leu Asp Val Asp Val
      130      135      140
Pro Thr Arg
145

```

```

<210> 3485
<211> 812
<212> DNA
<213> Homo sapiens

```

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<400> 3485
tatttattta tagtcacaaa aactgttcag gaagaaatgt tatgaaaaga acatttttac
60
tgcatgctta aaacatttaa ttttctatta tacagttaa ctttgcttg aattcagtga
120
gtctaaaaaa tcttattgtt ctcagggttag cagttagttg agcagagtcc attggtgaag
180
caatctagtt attggcaaat tctaacacat ggtaaggtgt gggggaaagg atttaaaata
240
acagaaaaat gtaagtacaa acatacataa cagcaaaaata aaactcactt taacaaaaat
300
ttatttaaaa tgttaccccc atatttcctc aatgaccaac ttgtttcagt tttatctccc
360
cctcatccgg ttattttatg tctttttggg aggaagggag atgaggggtt ttgttttta
420
acaaaatcac tggcttttta aaaagtgtta ctgcagtcac ttataagatg catgttatgt
480
ggaagtgata cctgagttgt ttgcatgggc aatggaagag gcagcagctc tgaaaggagt
540
atgagttccag aaaaaaatcc ttcaggaacc ttcaagattg aagaaagaac ttcttttaac
600
attaaagacc aagtattatt ggccagagtc tcttctgaga ttgtgagttt ttcattaact
660
ccttgtgtaa aagtcagtaa aatatcaatg atatcattct gaattttctg ttcactacta
720
tccaaacgac ctgagagggg gatagagcac aggagcatat gtaaagtaac aagcgctgaa
780
ggaacacgca tgtccttaaa ctcaaaggat cc
812

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<210> 3486
<211> 117
<212> PRT
<213> Homo sapiens

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<400> 3486
Met Arg Val Pro Ser Ala Leu Val Thr Leu His Met Leu Leu Cys Ser
1      5      10      15
Ile Pro Leu Ser Gly Arg Leu Asp Ser Asp Glu Gln Lys Ile Gln Asn
20      25      30
Asp Ile Ile Asp Ile Leu Leu Thr Phe Thr Gln Gly Val Asn Glu Lys

```

```

      35          40          45
Leu Thr Ile Ser Glu Glu Thr Leu Ala Asn Asn Thr Trp Ser Leu Met
      50          55          60
Leu Lys Glu Val Leu Ser Ser Ile Leu Lys Val Pro Glu Gly Phe Phe
      65          70          75          80
Ser Gly Leu Ile Leu Leu Ser Glu Leu Leu Pro Leu Pro Leu Pro Met
      85          90          95
Gln Thr Thr Gln Val Ser Leu Pro His Asn Met His Leu Ile Asn Asp
      100          105          110
Cys Ser Asn Thr Phe
      115

```

<210> 3487  
 <211> 772  
 <212> DNA  
 <213> Homo sapiens

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<400> 3487
nnattgtatc aaaatcctag atttgaataa cttattattt taaataatca gtaactaaaa
60
ccaagcaatc catcacacaa agaggggaaa gggtaatat ctgagttata aattttttac
120
cctgtctgat aaaaatagaa gcctgaaagt ttaaattttt cctggattta aatttaaaga
180
taaatttggt ttctagttaa atatcctcaa tagcaatttt accaaagagg cttctctctg
240
aaggccacct ctgaaataat tagaggataa atgtcaatgg catgatatta agatattact
300
tggccaggcg tggctgtcac gcgtgtaatc ccagcacttt gggaggccga ggcagggtgga
360
tcacgaggtc aagaaatcga gaccagcctg gctaacacag tgaaccccg tctcattctg
420
agcttcttga caccttttaa tccagtcact gaaattagca tctgcaccta gaaagaaaaa
480
actgactata acatcactca tctgcacaa ctattaatca gcaaatattt actgaatacc
540
tactacatcc caggcagtggt tctaggcact ggggagtcgg cagcgaacaa aacctgtctt
600
aacagacctt atcaccaact ctactatagt tataaacata ccaatagttt aacatttagt
660
tgттаатсат gaaacatttt gattttttta aaattttaac tacagtcaac cttaatttca
720
cagatacaaa taatctgcat ttcccccaat cccgctgctc ttagagaagc tt
772

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<210> 3488  
 <211> 59  
 <212> PRT  
 <213> Homo sapiens

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<400> 3488
Asp Ile Thr Trp Pro Gly Val Val Val Thr Arg Val Ile Pro Ala Leu
1      5      10      15
Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu Ile Glu Thr Ser

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20                      25                      30  
 Leu Ala Asn Thr Val Lys Pro Arg Leu Ile Leu Ser Phe Leu Thr Pro  
      35                      40                      45  
 Phe Asn Pro Val Thr Glu Ile Ser Ile Cys Thr  
      50                      55

<210> 3489  
 <211> 288  
 <212> DNA  
 <213> Homo sapiens

<400> 3489  
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 60  
 agggagacca ggtctggccc ccaactctaa ggctcatctt agaggcgaga ttcaggccca  
 120  
 gccccaggggtg ccccatgagg cctgggtggtt ggaggcagag ggtatccctt gcccaaattc  
 180  
 gtgccacatt cacagtcact gggaaagcta cggggatggg ccgggcgcgg tggctcacac  
 240  
 ctgtaatccc agcactttgg agagcccaaa gacgacggat cacgagtc  
 288

<210> 3490  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 3490  
 Met Gly Ala His Leu Leu Pro Gly Pro Gly Arg Pro Gly Arg Pro Gly  
 1                      5                      10                      15  
 Arg Pro Gly Leu Ala Pro Asn Ser Lys Ala His Leu Arg Gly Glu Ile  
      20                      25                      30  
 Gln Ala Gln Pro Arg Val Pro His Glu Ala Trp Trp Leu Glu Ala Glu  
      35                      40                      45  
 Gly Ile Pro Cys Pro Asn Ser Cys His Ile His Ser His Trp Glu Ser  
      50                      55                      60  
 Tyr Gly Asp Gly Pro Gly Ala Val Ala His Thr Cys Asn Pro Ser Thr  
 65                      70                      75                      80  
 Leu Glu Ser Pro Lys Thr Thr Asp His Glu  
      85                      90

<210> 3491  
 <211> 568  
 <212> DNA  
 <213> Homo sapiens

<400> 3491  
 gggaaccgac gtccctctgt ggtgaaattc cacccttca cgccgtgcat cgccgtagcc  
 60  
 gacaaggaca gcatctgctt ttgggactgg gagaagggg agaagctgga ttatttcac  
 120  
 aatgggaacc ctcggtacac gagggtcact gccatggagt atctgaatgg ccaggactgc  
 180

tcgcttctgc tgacggccac agacgatggt gccatcaggg tctggaagaa ttttctgat  
 240  
 ttggaaaaga acccagagat ggtgaccgcg tggcaggggc tctcggacat gctgccaacg  
 300  
 acgcgaggag ctgggatggt ggtggactgg gagcaggaga cggcctctct catgagctca  
 360  
 ggagacgtgc ggatcgctccg gatctgggac acagaccgtg agatgaaggt gcaggacatc  
 420  
 cctacgggcg cagacagctg tgtgacgagt ctgtcctgtg attcccaccg ctcactcatc  
 480  
 gtggctggcc tcggtgacgg ctccatccgc gtctacgaca gaaggatggc actcagcgaa  
 540  
 tgcccggtca tgacgtaccg ggagcaca  
 568

<210> 3492

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3492

Gly	Asn	Arg	Arg	Pro	Ser	Val	Val	Lys	Phe	His	Pro	Phe	Thr	Pro	Cys
1			5					10					15		
Ile	Ala	Val	Ala	Asp	Lys	Asp	Ser	Ile	Cys	Phe	Trp	Asp	Trp	Glu	Lys
		20					25					30			
Gly	Glu	Lys	Leu	Asp	Tyr	Phe	His	Asn	Gly	Asn	Pro	Arg	Tyr	Thr	Arg
	35						40					45			
Val	Thr	Ala	Met	Glu	Tyr	Leu	Asn	Gly	Gln	Asp	Cys	Ser	Leu	Leu	Leu
	50				55				60						
Thr	Ala	Thr	Asp	Asp	Gly	Ala	Ile	Arg	Val	Trp	Lys	Asn	Phe	Ala	Asp
65			70					75					80		
Leu	Glu	Lys	Asn	Pro	Glu	Met	Val	Thr	Ala	Trp	Gln	Gly	Leu	Ser	Asp
		85					90					95			
Met	Leu	Pro	Thr	Thr	Arg	Gly	Ala	Gly	Met	Val	Val	Asp	Trp	Glu	Gln
	100					105						110			
Glu	Thr	Gly	Leu	Leu	Met	Ser	Ser	Gly	Asp	Val	Arg	Ile	Val	Arg	Ile
	115					120					125				
Trp	Asp	Thr	Asp	Arg	Glu	Met	Lys	Val	Gln	Asp	Ile	Pro	Thr	Gly	Ala
	130				135					140					
Asp	Ser	Cys	Val	Thr	Ser	Leu	Ser	Cys	Asp	Ser	His	Arg	Ser	Leu	Ile
145			150					155					160		
Val	Ala	Gly	Leu	Gly	Asp	Gly	Ser	Ile	Arg	Val	Tyr	Asp	Arg	Arg	Met
		165				170						175			
Ala	Leu	Ser	Glu	Cys	Arg	Val	Met	Thr	Tyr	Arg	Glu	His			
	180					185									

<210> 3493

<211> 2244

<212> DNA

<213> Homo sapiens

<400> 3493

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120  
aatcactctg aaagatcaga caatagatca gaagcttctg agcgcttctga ccatgaggac  
180  
aatgacccct cagatgtaga tcagcacagt ggatcagaag cccctaata tgaagaagac  
240  
gaaggtcata gatcggtatg agggagccat cattcagaag cagaaggctt tgaanaagca  
300  
cattcagatg atgaaaaatg gggcagagaa gataaaagt accagtcaga tgatgaaaag  
360  
atacaaaatt ctgatgatga ggagaggcca caaggatctg atgaagataa gctgcagaat  
420  
tctgacgatg atgagaaaat gcagaacaca gatgatgagg agaggcctca gctttccgat  
480  
gatgagagac aacagctatc tgaggaggaa aaggctaatt ctgatgatga acggccggtg  
540  
gctttctgata atgatgatga gaaacagaat tctgatgatg aagaacaacc acagctgtct  
600  
gatgaagaga aaatgcaaaa ttctgatgat gaaaggccac agggcccaga tgaagaacac  
660  
aggcattcag atgatgaaga ggaacaggat cataaatcag aatccgcaag aggcagtgat  
720  
agtgaagatg aagttttacg aatgaaacgc aagaatgcga ttgcatctga ttcagaagcg  
780  
gatagtgaac ctgagggtgc aaaagataat agtggaaacca tggatttatt tggagggtga  
840  
gatgatattc ttccaggag tgatggagaa gacaaaccac ctactccagg acagcctgtt  
900  
gatgaaaatg gattgctcta ggatcaacag gaaggaggc caattcctga gaccagaata  
960  
gaagtagaaa tacccaaagt aaacactgat ttaggaaaac acttatattt tgtaaactg  
1020  
cccaactttc tcagtgtaga gccagacct tttgatcctc agtattatga agatgaattt  
1080  
gaagatgaag aaatgctgga tgaagaaggt agaaccaggt taaaattaaa ggtagaaaat  
1140  
actataagat ggagatacgc ccgagatgaa gaaggaaatg aaattaaaga aagcaatgct  
1200  
cggatagtca agtggtcaga tggaagcatg tccctgcatt taggcaatga agtgtttgat  
1260  
gtgtacaaag cccactgca gggcgaccac aatcatcttt ttataagaca aggtactggt  
1320  
ctacaggga aagcagctct taaagcgaaa ctcaccttca gacctcactc tacggacagt  
1380  
gccacacata gaaagatgac tctgtcactt gcagataggt gttcaaagac acagaagatt  
1440  
agaatcttgc caatggctgg tcgtgatcct gaatgccaac gcacagaaat gattaagaaa  
1500  
gaagaagaac gtttgagggc ttccatacgt agggaaatctc agcagcgccg aatgagagag  
1560  
aaacagcacc agcgggggct gagcgccagt tacctggaac ctgatcgata cgatgaggag  
1620  
gaggaaggcg aggagtcct cagcttggt gccattaaaa accgatataa agggggcatt  
1680

cgagaggaac gagccagaat ctattcatca gacagtgatg agggatcaga agaagataaa  
 1740  
 gctcaaagat tactcaaagc aaagaaactt accagtgatg aggaaggatga accttcaggga  
 1800  
 aagagaaaag cagaagatga tgataaagca aataaaaagc ataagaagta tgtgatcagc  
 1860  
 gatgaagagg aagaagatga tgattgaagt atgaaatatg aaaacatttt atatatttta  
 1920  
 ttgtacagtt ataaatatgt aaacatgagt tatttttgatt gaaatgaatc gatttgcttt  
 1980  
 tgtgtaatat taattgtaat aaaacaattt aaaagcaagt ctctatgttt aagaaatcta  
 2040  
 cttttccggc caggcgcggt ggctcatgcc tgtaatccca gcacttcggg aggccgaggc  
 2100  
 aggtggatca caaggtcgtg gtggcgggtg cctgtagtcg cagctactcg ggaggctgag  
 2160  
 gcggggggaat tgggtgaacc caggaggcag aggttgacgt tagccgagat cgcgccactg  
 2220  
 cactccagcc tggcgacaga gcta  
 2244

<210> 3494

<211> 628

<212> PRT

<213> Homo sapiens

<400> 3494

Xaa Gly Gly Tyr Pro Cys Ser Asp Gln Asp Glu Arg Gly Asp Ser Gly  
 1 5 10 15  
 Gln Pro Ser Asn Lys Glu Leu Phe Gly Asp Asp Ser Glu Asp Glu Gly  
 20 25 30  
 Ala Ser His His Ser Gly Ser Asp Asn His Ser Glu Arg Ser Asp Asn  
 35 40 45  
 Arg Ser Glu Ala Ser Glu Arg Ser Asp His Glu Asp Asn Asp Pro Ser  
 50 55 60  
 Asp Val Asp Gln His Ser Gly Ser Glu Ala Pro Asn Asp Asp Glu Asp  
 65 70 75 80  
 Glu Gly His Arg Ser Asp Gly Gly Ser His His Ser Glu Ala Glu Gly  
 85 90 95  
 Ser Glu Lys Ala His Ser Asp Asp Glu Lys Trp Gly Arg Glu Asp Lys  
 100 105 110  
 Ser Asp Gln Ser Asp Asp Glu Lys Ile Gln Asn Ser Asp Asp Glu Glu  
 115 120 125  
 Arg Ala Gln Gly Ser Asp Glu Asp Lys Leu Gln Asn Ser Asp Asp Asp  
 130 135 140  
 Glu Lys Met Gln Asn Thr Asp Asp Glu Glu Arg Pro Gln Leu Ser Asp  
 145 150 155 160  
 Asp Glu Arg Gln Gln Leu Ser Glu Glu Lys Ala Asn Ser Asp Asp  
 165 170 175  
 Glu Arg Pro Val Ala Ser Asp Asn Asp Asp Glu Lys Gln Asn Ser Asp  
 180 185 190  
 Asp Glu Glu Gln Pro Gln Leu Ser Asp Glu Glu Lys Met Gln Asn Ser  
 195 200 205  
 Asp Asp Glu Arg Pro Gln Ala Pro Asp Glu Glu His Arg His Ser Asp

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210          215          220
Asp Glu Glu Glu Gln Asp His Lys Ser Glu Ser Ala Arg Gly Ser Asp
225          230          235          240
Ser Glu Asp Glu Val Leu Arg Met Lys Arg Lys Asn Ala Ile Ala Ser
          245          250          255
Asp Ser Glu Ala Asp Ser Asp Thr Glu Val Pro Lys Asp Asn Ser Gly
          260          265          270
Thr Met Asp Leu Phe Gly Gly Ala Asp Asp Ile Ser Ser Gly Ser Asp
          275          280          285
Gly Glu Asp Lys Pro Pro Thr Pro Gly Gln Pro Val Asp Glu Asn Gly
          290          295          300
Leu Pro Gln Asp Gln Glu Glu Glu Pro Ile Pro Glu Thr Arg Ile
305          310          315          320
Glu Val Glu Ile Pro Lys Val Asn Thr Asp Leu Gly Asn Asp Leu Tyr
          325          330          335
Phe Val Lys Leu Pro Asn Phe Leu Ser Val Glu Pro Arg Pro Phe Asp
          340          345          350
Pro Gln Tyr Tyr Glu Asp Glu Phe Glu Asp Glu Glu Met Leu Asp Glu
          355          360          365
Glu Gly Arg Thr Arg Leu Lys Leu Lys Val Glu Asn Thr Ile Arg Trp
          370          375          380
Arg Ile Arg Arg Asp Glu Glu Gly Asn Glu Ile Lys Glu Ser Asn Ala
385          390          395          400
Arg Ile Val Lys Trp Ser Asp Gly Ser Met Ser Leu His Leu Gly Asn
          405          410          415
Glu Val Phe Asp Val Tyr Lys Ala Pro Leu Gln Gly Asp His Asn His
          420          425          430
Leu Phe Ile Arg Gln Gly Thr Gly Leu Gln Gly Gln Ala Val Phe Lys
          435          440          445
Ala Lys Leu Thr Phe Arg Pro His Ser Thr Asp Ser Ala Thr His Arg
          450          455          460
Lys Met Thr Leu Ser Leu Ala Asp Arg Cys Ser Lys Thr Gln Lys Ile
465          470          475          480
Arg Ile Leu Pro Met Ala Gly Arg Asp Pro Glu Cys Gln Arg Thr Glu
          485          490          495
Met Ile Lys Lys Glu Glu Glu Arg Leu Arg Ala Ser Ile Arg Arg Glu
          500          505          510
Ser Gln Gln Arg Arg Met Arg Glu Lys Gln His Gln Arg Gly Leu Ser
          515          520          525
Ala Ser Tyr Leu Glu Pro Asp Arg Tyr Asp Glu Glu Glu Glu Gly Glu
          530          535          540
Glu Ser Ile Ser Leu Ala Ala Ile Lys Asn Arg Tyr Lys Gly Gly Ile
545          550          555          560
Arg Glu Glu Arg Ala Arg Ile Tyr Ser Ser Asp Ser Asp Glu Gly Ser
          565          570          575
Glu Glu Asp Lys Ala Gln Arg Leu Leu Lys Ala Lys Lys Leu Thr Ser
          580          585          590
Asp Glu Glu Gly Glu Pro Ser Gly Lys Arg Lys Ala Glu Asp Asp Asp
          595          600          605
Lys Ala Asn Lys Lys His Lys Lys Tyr Val Ile Ser Asp Glu Glu Glu
610          615          620
Glu Asp Asp Asp
625

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<210> 3495  
 <211> 1085  
 <212> DNA  
 <213> Homo sapiens

<400> 3495  
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 cgcagacaca agatggtgaa ggagaccag tactatgaca tcctgggcgt gaagcccagc  
 120  
 gcgtcccccg aggagatcaa gaaggcctat cggaagctgg cgctcaagta ccaccggac  
 180  
 aagaaccgag atgagggcga gaagttttaa ctcatatccc aggcataatga agtgctttca  
 240  
 gatccaaaga aaagggatgt ttatgaccaa ggcggagagc aggcaattaa agaaggaggc  
 300  
 tcaggcagcc ccagcttctc ttcacccatg gacatctttg acatgttctt tgggtggtgg  
 360  
 ggacggatgg ctagagagag aagaggcaag aatgtgttac accagttatc tgtaactctt  
 420  
 gaagatctat ataagggagt cacgaagaaa ttggccctcc agaaaaatgt aatttgtgag  
 480  
 aaatgtgaag gtgttggtgg gaagaaggga tcggtggaga agtgcccgtc gtgcaagggg  
 540  
 cgggggatgc agatccacat ccagcagatc gggccgggca tggtagacga gatccagacc  
 600  
 gtgtgcatcg agtgcgaagg ccagggtgag cgcataaacc ccaaggaccg ctgcgagagc  
 660  
 tgcagcgggg ccaaggtgat ccgtgagaag aagattatcg aggtacatgt tgaataaagt  
 720  
 atgaaagatg ggcaaaagat actatttcat ggagaaggag atcaggagcc tgagctggag  
 780  
 cctgggtgatg tcataattgt gcttgatcag aaggatcata gtgtctttca gagacgaggc  
 840  
 catgacttga tcataaaaa gaaaattcag ctttctgaag ctctttgtgg cttcaagaag  
 900  
 acgataaaaa cattggacaa tcgaattctt gttattacat ccaaagcagg tgagggtgata  
 960  
 aagcacgggg acctgagatg cgtgcgcat gaaggaaatgc ccattctaca agcaccctg  
 1020  
 gaaaaaggga ttctgatcat acagttttta gtaattcttc ctganaaaca ctggctttct  
 1080  
 ctgga  
 1085

<210> 3496  
 <211> 337  
 <212> PRT  
 <213> Homo sapiens

<400> 3496  
 Met Val Lys Glu Thr Gln Tyr Tyr Asp Ile Leu Gly Val Lys Pro Ser  
 1 5 10 15  
 Ala Ser Pro Glu Glu Ile Lys Lys Ala Tyr Arg Lys Leu Ala Leu Lys

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      20      25      30
Tyr His Pro Asp Lys Asn Pro Asp Glu Gly Glu Lys Phe Lys Leu Ile
      35      40      45
Ser Gln Ala Tyr Glu Val Leu Ser Asp Pro Lys Lys Arg Asp Val Tyr
      50      55      60
Asp Gln Gly Gly Glu Gln Ala Ile Lys Glu Gly Gly Ser Gly Ser Pro
      65      70      75      80
Ser Phe Ser Ser Pro Met Asp Ile Phe Asp Met Phe Phe Gly Gly Gly
      85      90      95
Gly Arg Met Ala Arg Glu Arg Arg Gly Lys Asn Val Val His Gln Leu
      100      105      110
Ser Val Thr Leu Glu Asp Leu Tyr Asn Gly Val Thr Lys Lys Leu Ala
      115      120      125
Leu Gln Lys Asn Val Ile Cys Glu Lys Cys Glu Gly Val Gly Gly Lys
      130      135      140
Lys Gly Ser Val Glu Lys Cys Pro Leu Cys Lys Gly Arg Gly Met Gln
      145      150      155      160
Ile His Ile Gln Gln Ile Gly Pro Gly Met Val Gln Gln Ile Gln Thr
      165      170      175
Val Cys Ile Glu Cys Lys Gly Gln Gly Glu Arg Ile Asn Pro Lys Asp
      180      185      190
Arg Cys Glu Ser Cys Ser Gly Ala Lys Val Ile Arg Glu Lys Lys Ile
      195      200      205
Ile Glu Val His Val Glu Lys Gly Met Lys Asp Gly Gln Lys Ile Leu
      210      215      220
Phe His Gly Glu Gly Asp Gln Glu Pro Glu Leu Glu Pro Gly Asp Val
      225      230      235      240
Ile Ile Val Leu Asp Gln Lys Asp His Ser Val Phe Gln Arg Arg Gly
      245      250      255
His Asp Leu Ile Met Lys Met Lys Ile Gln Leu Ser Glu Ala Leu Cys
      260      265      270
Gly Phe Lys Lys Thr Ile Lys Thr Leu Asp Asn Arg Ile Leu Val Ile
      275      280      285
Thr Ser Lys Ala Gly Glu Val Ile Lys His Gly Asp Leu Arg Cys Val
      290      295      300
Arg Asp Glu Gly Met Pro Ile Tyr Lys Ala Pro Leu Glu Lys Gly Ile
      305      310      315      320
Leu Ile Ile Gln Phe Leu Val Ile Phe Pro Xaa Lys His Trp Leu Ser
      325      330      335
Leu

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<210> 3497  
 <211> 1638  
 <212> DNA  
 <213> Homo sapiens

<400> 3497  
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 60  
 gtggcaactt tgttgctata attttatgca gcagataaag gtagacgttc ctccccaag  
 120  
 tttttagtat atccttctaa aaagtcttcc tgagaatttt tagtttgcc tctcaagttt  
 180

ccttatttta ctttttctta aattacctcc ctcttctctt agtgaaatga gccttctctc  
240  
agcatacgca acttatccctt attgcttttt tcatacccaa ttttttgttt tatctctctc  
300  
agcccaactgg gtccctgaagt agctgaaatg cgaaaaaggc agcagtccca aaatgaagga  
360  
acacctgctg tgtctcaagc tcctggaaac cagaggccca acaaacctg ttgcttttgt  
420  
tggtgctgtt gttgcagctg ctctgcctc actgtgagga atgaagaaag aggggaaaat  
480  
gcgggaagac ccacacacac tacaaaaatg gagagtatcc aggtcctaga ggaatgcca  
540  
aaccctactg cagaggaagt cttgtcctgg tctcaaaatt ttgacaagat gatgaaggcc  
600  
ccagcaggaa gaaacctttt cagagagttc ctccgaacag aatacagtga agagaaccta  
660  
cttttctggc ttgcttgta agacttaaag aaggagcaga acaaaaaagt aattgaagaa  
720  
aaggctagga tgatatatga agattacatt tctatactat caccaaaaga ggtcagtctt  
780  
gattctcgag ttagagaggt gatcaataga aatctgttg atcccaatcc tcacatgtat  
840 aacttcagat atatacttta atgcacagag attcttttcc aaggtttttg 900  
aactctcaa tttataagtc attgttgaa agtactgctg gctcttctc tgaatcttaa  
960  
tgttctatta aaaacaatca tttggaggg ctgagatggg aaataaaagt agttaataa  
1020  
catcagaac tgagttcctg gagaactaca gtttagcatt cctcaggcta ctgtgaaac  
1080  
acaaccgtta tggcttttgt ctccattttt atcaagggtt tccatggta agtttgaga  
1140  
aaataccaca caaaacaatg aattgccaaa ttgtttgtt tattcaagac tcattctact  
1200  
tgcaagcaa gtgtatttgt agtctatga acagtctct cgtgtatctc cagagactgc  
1260  
atgtgcaaag taaaatgctt catttgccac atagttgtt taatatata tccagtagca  
1320  
taacttatat ctgtatttaa ggacttttgt gcaatatggt cttagaagaat aattgccaaa  
1380  
aaaatcgcc atgggttgca tttttaaca taatctaaga cagaaaaaa gcaattttta  
1440  
ctatgtaaca atggatttca acattctata tactgtgtt agtacctaa tttgaagcc  
1500  
aatatttctg tacatgaaaa agagctattt atctctgtt gttggaaaat cctaattggg  
1560  
attcctctgg ttgttactg ccaaaactgt ggcattttca ttacaggaga gtttactatg  
1620  
ctaaaagcaa aaaacaaa  
1638

&lt;210&gt; 3498

&lt;211&gt; 210

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



<400> 3498  
 Met Arg Lys Arg Gln Gln Ser Gln Asn Glu Gly Thr Pro Ala Val Ser  
 1 5 10 15  
 Gln Ala Pro Gly Asn Gln Arg Pro Asn Asn Thr Cys Cys Phe Cys Trp  
 20 25 30  
 Cys Cys Cys Ser Cys Ser Cys Leu Thr Val Arg Asn Glu Glu Arg  
 35 40 45  
 Gly Glu Asn Ala Gly Arg Pro Thr His Thr Thr Lys Met Glu Ser Ile  
 50 55 60  
 Gln Val Leu Glu Glu Cys Gln Asn Pro Thr Ala Glu Glu Val Leu Ser  
 65 70 75 80  
 Trp Ser Gln Asn Phe Asp Lys Met Met Lys Ala Pro Ala Gly Arg Asn  
 85 90 95  
 Leu Phe Arg Glu Phe Leu Arg Thr Glu Tyr Ser Glu Glu Asn Leu Leu  
 100 105 110  
 Phe Trp Leu Ala Cys Glu Asp Leu Lys Lys Glu Gln Asn Lys Lys Val  
 115 120 125  
 Ile Glu Glu Lys Ala Arg Met Ile Tyr Glu Asp Tyr Ile Ser Ile Leu  
 130 135 140  
 Ser Pro Lys Glu Val Ser Leu Asp Ser Arg Val Arg Glu Val Ile Asn  
 145 150 155 160  
 Arg Asn Leu Leu Asp Pro Asn Pro His Met Tyr Glu Asp Ala Gln Leu  
 165 170 175  
 Gln Ile Tyr Thr Leu Met His Arg Asp Ser Phe Pro Arg Phe Leu Asn  
 180 185 190  
 Ser Gln Ile Tyr Lys Ser Phe Val Glu Ser Thr Ala Gly Ser Ser Ser  
 195 200 205  
 Glu Ser  
 210

<210> 3499  
 <211> 732  
 <212> DNA  
 <213> Homo sapiens

<400> 3499  
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 gtcctgattc gtcctcacag ccttgacctg gcagaagctt cactcctgcc ccagcccc  
 120  
 tgccacgggc ggcgtccag cctggcacag aggtattgtg attccanaa tggccaagnc  
 180  
 aacagactcn aacctcagga tngttctatt ttcgcccaga agcaataatt ttttttcct  
 240  
 tctggaagac cttttcaaga tagtgatgtt gatgtggggg cacggcggtc gccgggtaca  
 300  
 tggaggtacc ggggtcacag cagcgcaagc accgggaagc agggagcccc tggtcctgac  
 360  
 tgggcctgta tttttcatgt tgtcttcag cctctcggc atgggtccgga ggcgacggca  
 420  
 gtcctcagt cccctccac tctgtgtgt cccctggac atggggcaca cgactcagga  
 480  
 ccaggccaga ggcaaggca aggagcaggc agtacgccag caagagtccc tgtccacggg  
 540

agcccatctt cctgcccggc cctccgtccc gccggccgct cctcccgcgc cggccctaga  
600  
gcatctcccc cggccaagc ctctcccg ccanggtccg gggcgatgca cagactcggg  
660  
gaaggaaaca gagcaggga aaaggtcttc cggaggacgg cagtgcagaa gaggagggg  
720  
ggggggcgga cg  
732

<210> 3500  
<211> 168  
<212> PRT  
<213> Homo sapiens

<400> 3500  
Phe Phe Phe Pro Ser Gly Lys Pro Phe Gln Asp Ser Asp Val Asp Val  
1 5 10 15  
Gly Ala Arg Arg Ser Pro Gly Thr Trp Arg Tyr Arg Gly His Ser Ser  
20 25 30  
Ala Ser Thr Gly Lys Gln Gly Ala Pro Gly Pro Asp Trp Ala Cys Ile  
35 40 45  
Phe His Val Val Leu Gln Pro Ser Arg His Gly Pro Glu Ala Thr Ala  
50 55 60  
Ala Pro Gln Ser Pro Pro Thr Pro Ala Val Pro Pro Gly His Gly Ala  
65 70 75 80  
His Asp Ser Gly Pro Gly Gln Arg Gln Arg Gln Gly Ala Gly Ser Thr  
85 90 95  
Pro Ala Arg Val Pro Val His Gly Ser Pro Ser Ser Cys Arg Ala Leu  
100 105 110  
Arg Pro Ala Gly Arg Ser Ser Arg Ala Ala Pro Arg Ala Ser Pro Ala  
115 120 125  
Gly Gln Ala Ser Ser Arg Pro Xaa Ser Gly Ala Met His Arg Leu Gly  
130 135 140  
Glu Gly Asn Arg Ala Gly Glu Lys Val Phe Arg Arg Thr Ala Val Gln  
145 150 155 160  
Lys Arg Arg Val Gly Gly Gly Thr  
165

<210> 3501  
<211> 691  
<212> DNA  
<213> Homo sapiens

<400> 3501  
nnagtagcaa ccgcccgaat gccgaaagca acaacaatca aagaagcctt agcgagatgg  
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gaagagaaaa ctggccagag gccatctgaa gccaaagaga taaaacttta tgcccagatt  
120  
ccccctatag agaagatgga tgcctccttg tccatgcttg ctaattgcga gaagctttca  
180  
ctgtctacaa actgcattga aaaaattgcc aacctgaatg gcttaaaaaa cttgaggata  
240  
ttatcttttag gaagaaacaa cataaagaac ttaaatggac tggaggcagt aggggacaca  
300

ttagaagaac tgtggatctc ctacaatttt attgagaagt tgaaagggat ccacataatg  
 360  
 aagaaattga agattctcta catgtctaata aacctggtaa aagactgggc tgagtttctg  
 420  
 aagctggcag aactgccatg cctcgaagac ctggtgtttg taggcaatcc cttggaagag  
 480  
 aaacattctg ctgagaataa ctggattgaa gaagcaacca agagagtgcc caaactgaaa  
 540  
 aagctggatg gtactccagt aattaaaggg gatgaggaag aagacaacta atgccacgct  
 600  
 ttccactgtg tgttaactta tttaaatgtc ataagaacaa tagataaatt ttatataatt  
 660  
 gtctatttta aaaaaaaaaa aaaaaaaaaa a  
 691

<210> 3502

<211> 196

<212> PRT

<213> Homo sapiens

<400> 3502

Xaa Val Ala Thr Ala Gly Met Ala Lys Ala Thr Thr Ile Lys Glu Ala  
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 Leu Ala Arg Trp Glu Glu Lys Thr Gly Gln Arg Pro Ser Glu Ala Lys  
 20 25 30  
 Glu Ile Lys Leu Tyr Ala Gln Ile Pro Pro Ile Glu Lys Met Asp Ala  
 35 40 45  
 Ser Leu Ser Met Leu Ala Asn Cys Glu Lys Leu Ser Leu Ser Thr Asn  
 50 55 60  
 Cys Ile Glu Lys Ile Ala Asn Leu Asn Gly Leu Lys Asn Leu Arg Ile  
 65 70 75 80  
 Leu Ser Leu Gly Arg Asn Asn Ile Lys Asn Leu Asn Gly Leu Glu Ala  
 85 90 95  
 Val Gly Asp Thr Leu Glu Glu Leu Trp Ile Ser Tyr Asn Phe Ile Glu  
 100 105 110  
 Lys Leu Lys Gly Ile His Ile Met Lys Lys Leu Lys Ile Leu Tyr Met  
 115 120 125  
 Ser Asn Asn Leu Val Lys Asp Trp Ala Glu Phe Val Lys Leu Ala Glu  
 130 135 140  
 Leu Pro Cys Leu Glu Asp Leu Val Phe Val Gly Asn Pro Leu Glu Glu  
 145 150 155 160  
 Lys His Ser Ala Glu Asn Asn Trp Ile Glu Glu Ala Thr Lys Arg Val  
 165 170 175  
 Pro Lys Leu Lys Lys Leu Asp Gly Thr Pro Val Ile Lys Gly Asp Glu  
 180 185 190  
 Glu Glu Asp Asn  
 195

<210> 3503

<211> 857

<212> DNA

<213> Homo sapiens

<400> 3503

gcggcgccca ggtggagcgc gtcgggcccc tggatccggg gaaacggcca aggttgcggg  
 60  
 agtctcttca ctctcgtctc aaagccattt tgtgccgctg ccgctgcctc tacggccata  
 120  
 aatgcccaga gattagcggg gaagctccga gccagaaac gggaacaaga cacaagaag  
 180  
 gagccgggtg ccacaaacgc tgttcagcgg agagtgaag aaatagtgcg gttcacacgg  
 240  
 cagctgcagc gagtccccc caacgtgctt gctaaggcac tgacccgagg aattctccac  
 300  
 caggacaaga acctgtggt catcaataag ccctacggtc tccctgtgca tggtagccct  
 360  
 ggggtccagc tctgcatcac tgatgtacta cctatcctgg caaagatgct tcatggccac  
 420  
 aaggcagagc ccttgcatct gtgccaccgg ctggacaagg aaaccacagg tgtaatggtg  
 480  
 ttggcttggg acaaggacat ggcacatcaa gtccaagagt tgtttagaac ccgtcaggtg  
 540  
 gtgaagaagt actgggcat cactgtgcat gtcccatgc cctcagcagg agtcgtggac  
 600  
 atccccattg tggagaagga ggggcaaggc cagcagcaac accccagaat gacattgtcc  
 660  
 ccgagctccc gcattggacg tgggaaaatg gtgaaagtgc ggcgcagccg gaatgcgcaa  
 720  
 gttgtgtaa ctcatgacca ggtgctcagc agcactctct cctccgcctt cgtggagctc  
 780  
 cagcccatca ctggaataaa acatcagctt cgagttcact tgccttttgg attggattgt  
 840  
 ccaatccttg gtgatca  
 857

&lt;210&gt; 3504

&lt;211&gt; 285

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3504

Ala Ala Pro Arg Trp Ser Ala Ser Gly Pro Trp Ile Arg Gly Asn Gly  
 1 5 10 15  
 Gln Gly Cys Gly Ser Leu Phe Thr Leu Val Ser Lys Pro Phe Cys Ala  
 20 25 30  
 Ala Ala Ala Ala Ser Thr Ala Ile Asn Ala Gln Arg Leu Ala Glu Lys  
 35 40 45  
 Leu Arg Ala Gln Lys Arg Glu Gln Asp Thr Lys Lys Glu Pro Val Ser  
 50 55 60  
 Thr Asn Ala Val Gln Arg Arg Val Gln Glu Ile Val Arg Phe Thr Arg  
 65 70 75 80  
 Gln Leu Gln Arg Val His Pro Asn Val Leu Ala Lys Ala Leu Thr Arg  
 85 90 95  
 Gly Ile Leu His Gln Asp Lys Asn Leu Val Val Ile Asn Lys Pro Tyr  
 100 105 110  
 Gly Leu Pro Val His Gly Gly Pro Gly Val Gln Leu Cys Ile Thr Asp  
 115 120 125  
 Val Leu Pro Ile Leu Ala Lys Met Leu His Gly His Lys Ala Glu Pro

130                      135                      140  
 Leu His Leu Cys His Arg Leu Asp Lys Glu Thr Thr Gly Val Met Val  
 145                      150                      155                      160  
 Leu Ala Trp Asp Lys Asp Met Ala His Gln Val Gln Glu Leu Phe Arg  
                     165                      170                      175  
 Thr Arg Gln Val Val Lys Lys Tyr Trp Ala Ile Thr Val His Val Pro  
                     180                      185                      190  
 Met Pro Ser Ala Gly Val Val Asp Ile Pro Ile Val Glu Lys Glu Gly  
                     195                      200                      205  
 Gln Gly Gln Gln Gln His Pro Arg Met Thr Leu Ser Pro Ser Ser Arg  
                     210                      215                      220  
 Met Asp Asp Gly Lys Met Val Lys Val Arg Arg Ser Arg Asn Ala Gln  
 225                      230                      235                      240  
 Val Ala Val Thr Gln Tyr Gln Val Leu Ser Ser Thr Leu Ser Ser Ala  
                     245                      250                      255  
 Leu Val Glu Leu Gln Pro Ile Thr Gly Ile Lys His Gln Leu Arg Val  
                     260                      265                      270  
 His Leu Ser Phe Gly Leu Asp Cys Pro Ile Leu Gly Asp  
                     275                      280                      285

<210> 3505  
 <211> 1612  
 <212> DNA  
 <213> Homo sapiens

<400> 3505  
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 ctcttcccg tccggtcct ggttgcgct gccatgatgc tgetggcctg gcccctcgca  
 120  
 cttgtcgcac ccttgggctc tgcggagaag gaacccgagc agccccggc cctgtggagg  
 180  
 aaggttgtgg acttctctgt gaaggccatc atgcgcacca tgtggttcgc cggcggcttc  
 240  
 caccgggtgg ccgtgaagg ggcgcaggcg ctgccaccg aggcggccat cctcacgctc  
 300  
 gcgcctcact cgtctactt cgacgccatc cctgtgacca tgacgatgtc ctccatcgtg  
 360  
 atgaagacag agagcagaga catcccgatc tggggaactc tgatccagta tatacggcct  
 420  
 gtgttcgtgt cccggtcaga ccaggattct cgcaggaaaa cagtagaaga aatcaagaga  
 480  
 cgggcgcagt ccaacggaaa gtggccacag ataatgattt ttccagaagg aacttgata  
 540  
 aacaggacct gcctaattac cttcaaacct ggtgcattca tccctggagc gcccgccac  
 600  
 cctgggggtt tacgatatcc aaataaactg gacaccatca catggacgtg gcaaggacct  
 660  
 ggagcgttg aaatcctgtg gtcacgctg tgtcagtttc acaaccaagt ggaaatcgag  
 720  
 ttccttcttg tgtacagccc ttctgaggag gagaagagga accccgcgct gtatgccagc  
 780  
 aacgtgcggc gagtcatggc cgaggccttg ggtgtctccg tgactgacta cacgttcgag  
 840

gactgccagc tggccctggc ggaaggacag ctccgtctcc ccgctgacac ttgcctttta  
 900  
 gaatttgcca ggctcgtgcg gggcctcggg ctaaaaccag aaaagcttga aaaagatctg  
 960  
 gacagatact cagaaagagc caggatgaag ggaggagaga agataggat tgcggagttt  
 1020  
 gccgcctccc tggaaagtcg cgtttctgac ttgctggaag acatgttttc actgttcgac  
 1080  
 gagagcggca gcggcgaggt ggacctgcga gagtgtgtgg ttgccctgtc tgcgtctgac  
 1140  
 tggccggccc ggacctgga caccatccag ctggccttca agatgtacgg agcgcaagag  
 1200  
 gacggcagcg tcggcgaaag tgacctgtcc tgcacctca agacggccct gggggtggca  
 1260  
 gagctcactg tgaccgacct attccgagcc attgaccaag aggagaaggg gaagatcaca  
 1320  
 ttcgctgact tccacaggtt tgcagaaatg tacctgcct tcgcagagga atacctgtac  
 1380  
 ccggatcaga cacatttcga aagctgtgca gagacctcac ctgcgccaat cccaaacggc  
 1440  
 ttctgtgccc atttcagccc ggaaaactca gacgtggggc ggaagcctgt tcgcaagaag  
 1500  
 ctggattagg acccagggtt gcggagagac gcggccctc ccgctgtggac atcaccgcca  
 1560  
 tgagcctctt tgcgagtgac ctctgggctc cgctctctac tcctgctgta ca  
 1612

&lt;210&gt; 3506

&lt;211&gt; 502

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3506

Val His Glu Leu His Leu Ser Ala Leu Gln Lys Ala Gln Val Ala Leu  
 1 5 10 15  
 Met Thr Leu Thr Leu Phe Pro Val Arg Leu Leu Val Ala Ala Met  
 20 25 30  
 Met Leu Leu Ala Trp Pro Leu Ala Leu Val Ala Ser Leu Gly Ser Ala  
 35 40 45  
 Glu Lys Glu Pro Glu Gln Pro Pro Ala Leu Trp Arg Lys Val Val Asp  
 50 55 60  
 Phe Leu Leu Lys Ala Ile Met Arg Thr Met Trp Phe Ala Gly Gly Phe  
 65 70 75 80  
 His Arg Val Ala Val Lys Gly Arg Gln Ala Leu Pro Thr Glu Ala Ala  
 85 90 95  
 Ile Leu Thr Leu Ala Pro His Ser Ser Tyr Phe Asp Ala Ile Pro Val  
 100 105 110  
 Thr Met Thr Met Ser Ser Ile Val Met Lys Thr Glu Ser Arg Asp Ile  
 115 120 125  
 Pro Ile Trp Gly Thr Leu Ile Gln Tyr Ile Arg Pro Val Phe Val Ser  
 130 135 140  
 Arg Ser Asp Gln Asp Ser Arg Arg Lys Thr Val Glu Glu Ile Lys Arg  
 145 150 155 160  
 Arg Ala Gln Ser Asn Gly Lys Trp Pro Gln Ile Met Ile Phe Pro Glu

165 170 175  
 Gly Thr Cys Thr Asn Arg Thr Cys Leu Ile Thr Phe Lys Pro Gly Ala  
 180 185 190  
 Phe Ile Pro Gly Ala Pro Val His Pro Gly Val Leu Arg Tyr Pro Asn  
 195 200 205  
 Lys Leu Asp Thr Ile Thr Trp Thr Trp Gln Gly Pro Gly Ala Leu Glu  
 210 215 220  
 Ile Leu Trp Leu Thr Leu Cys Gln Phe His Asn Gln Val Glu Ile Glu  
 225 230 235 240  
 Phe Leu Pro Val Tyr Ser Pro Ser Glu Glu Glu Lys Arg Asn Pro Ala  
 245 250 255  
 Leu Tyr Ala Ser Asn Val Arg Arg Val Met Ala Glu Ala Leu Gly Val  
 260 265 270  
 Ser Val Thr Asp Tyr Thr Phe Glu Asp Cys Gln Leu Ala Leu Ala Glu  
 275 280 285  
 Gly Gln Leu Arg Leu Pro Ala Asp Thr Cys Leu Leu Glu Phe Ala Arg  
 290 295 300  
 Leu Val Arg Gly Leu Gly Leu Lys Pro Glu Lys Leu Glu Lys Asp Leu  
 305 310 315 320  
 Asp Arg Tyr Ser Glu Arg Ala Arg Met Lys Gly Gly Glu Lys Ile Gly  
 325 330 335  
 Ile Ala Glu Phe Ala Ala Ser Leu Glu Val Pro Val Ser Asp Leu Leu  
 340 345 350  
 Glu Asp Met Phe Ser Leu Phe Asp Glu Ser Gly Ser Gly Glu Val Asp  
 355 360 365  
 Leu Arg Glu Cys Val Val Ala Leu Ser Val Val Cys Trp Pro Ala Arg  
 370 375 380  
 Thr Leu Asp Thr Ile Gln Leu Ala Phe Lys Met Tyr Gly Ala Gln Glu  
 385 390 395 400  
 Asp Gly Ser Val Gly Glu Gly Asp Leu Ser Cys Ile Leu Lys Thr Ala  
 405 410 415  
 Leu Gly Val Ala Glu Leu Thr Val Thr Asp Leu Phe Arg Ala Ile Asp  
 420 425 430  
 Gln Glu Glu Lys Gly Lys Ile Thr Phe Ala Asp Phe His Arg Phe Ala  
 435 440 445  
 Glu Met Tyr Pro Ala Phe Ala Glu Glu Tyr Leu Tyr Pro Asp Gln Thr  
 450 455 460  
 His Phe Glu Ser Cys Ala Glu Thr Ser Pro Ala Pro Ile Pro Asn Gly  
 465 470 475 480  
 Phe Cys Ala Asp Phe Ser Pro Glu Asn Ser Asp Ala Gly Arg Lys Pro  
 485 490 495  
 Val Arg Lys Lys Leu Asp  
 500

<210> 3507  
 <211> 885  
 <212> DNA  
 <213> Homo sapiens

<400> 3507  
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 120

cgagcccgct ccccgccatc cgtgctcaag tcccactcgc ttagtcatt gttgatgctg  
 180  
 acctgggcca tggccccgag agccttcttc ctgcaaggtc tgggggttct gccttacaac  
 240  
 cacatgcttc agggagctga gcaacaccca cctgtttggg gctgttagct taggactctt  
 300  
 ctcaacctgc tctttctccc tgatgggctg tgccagaggc ggttgctatg tgagggtggc  
 360  
 atcgctgtct acacctttgg cacctgcatt gccttcctaa tcatcattgg cgaccagcag  
 420  
 gacaagatta tagctgtgat ggcgaagag ccggaggggg ccagcgggcc ttggtacaca  
 480  
 gaccgcaagt tcaccatcag cctcactgcc ttctcttcca tctgcccct ctccatcccc  
 540  
 agggagattg gtttccagaa atatgccagc ttctgagcgc tcgtgggtac ctggtacgtc  
 600  
 acagccatcg ttatcatcaa gtacatctgg ccagataaag agatgacccc aggggaacac  
 660  
 ctgaccaggc cggcttcctg gatggctgtg ttcaatgcca tgcccacat ctgcttcgga  
 720  
 tttagtgcc acgtcagcag tgtgcccgtc ttcaacagca tgacgagcc tgaagtgaag  
 780  
 acctgggggtg gagtgggtgac agctgccatg gtcatagccc tcgtgtgcta catggggaca  
 840  
 ggcatctgtg gcttcctgac ctttggagct gctgtggatc ctgac  
 885

&lt;210&gt; 3508

&lt;211&gt; 199

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3508

Leu Arg Thr Leu Leu Asn Leu Leu Phe Leu Pro Asp Gly Leu Cys Gln  
 1 5 10 15  
 Arg Arg Leu Leu Cys Glu Val Ala Ile Ala Val Tyr Thr Phe Gly Thr  
 20 25 30  
 Cys Ile Ala Phe Leu Ile Ile Ile Gly Asp Gln Gln Asp Lys Ile Ile  
 35 40 45  
 Ala Val Met Ala Lys Glu Pro Glu Gly Ala Ser Gly Pro Trp Tyr Thr  
 50 55 60  
 Asp Arg Lys Phe Thr Ile Ser Leu Thr Ala Phe Leu Phe Ile Leu Pro  
 65 70 75 80  
 Leu Ser Ile Pro Arg Glu Ile Gly Phe Gln Lys Tyr Ala Ser Phe Leu  
 85 90 95  
 Ser Val Val Gly Thr Trp Tyr Val Thr Ala Ile Val Ile Ile Lys Tyr  
 100 105 110  
 Ile Trp Pro Asp Lys Glu Met Thr Pro Gly Asn Ile Leu Thr Arg Pro  
 115 120 125  
 Ala Ser Trp Met Ala Val Phe Asn Ala Met Pro Thr Ile Cys Phe Gly  
 130 135 140  
 Phe Gln Cys His Val Ser Ser Val Pro Val Phe Asn Ser Met Gln Gln  
 145 150 155 160  
 Pro Glu Val Lys Thr Trp Gly Gly Val Val Thr Ala Ala Met Val Ile



Ala Leu Ala Val Tyr Met Gly Thr Gly Ile Cys Gly Phe Leu Thr Phe  
 165 170 175  
 180 185 190  
 Gly Ala Ala Val Asp Pro Asp  
 195

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<210> 3509
<211> 331
<212> DNA
<213> Homo sapiens
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3400> 3509
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120
gccctctgcg acgggctcccc gaccgagggg gagctcccca cgcacgagca ggtcttccctg
180
agccccccac ctccctttaag cccccgaggg cctgggttgc ccacagaagt ggaggagcgc
240
aggcagcttg gtaaggcgcc catgggttga gtgccctggg gctcagatgg tcaccaacgg
300
tggcagggtg tccccacca ccctcacgcg t
331

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<210> 3510
<211> 110
<212> PRT
<213> Homo sapiens
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400> 3510															
Leu	Val	His	Arg	Thr	Met	Ala	Gln	Pro	Pro	Val	His	Asp	Tyr	Val	Pro
1				5					10					15	
Val	Ser	Trp	Thr	Ala	Leu	Val	His	Val	Lys	Ala	Glu	Tyr	Phe	Arg	Ser
			20					25					30		
Leu	Ala	His	Tyr	His	Val	Ala	Met	Ala	Leu	Cys	Asp	Gly	Ser	Pro	Thr
			35				40					45			
Glu	Gly	Glu	Leu	Pro	Thr	His	Glu	Gln	Val	Phe	Leu	Ser	Pro	Pro	Pro
	50					55					60				
Pro	Leu	Ser	Pro	Arg	Gly	Pro	Gly	Leu	Pro	Gln	Lys	Leu	Glu	Glu	Arg
65					70					75					80
Arg	Gln	Leu	Gly	Lys	Ala	Pro	Met	Gly	Gly	Val	Pro	Trp	Gly	Ser	Asp
				85					90					95	
Gly	His	Gln	Arg	Trp	Gln	Gly	Val	Pro	His	His	Pro	His	Ala		
			100					105					110		

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<210> 3511
<211> 3319
<212> DNA
<213> Homo sapiens
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<400> 3511
nnngcgcgccca gggggcgccctc atgtgagagc cgcggggacct gcagccgcgcg ccgtccccga
60
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agcacggggt ggtgtgtggg ggaagccgcc cccggcagca ggatgaaacg aggaggaaga  
120  
gatagtgacc gtaattcatc agaagaagga actgcagaga aatccaagaa actgaggact  
180  
acaaatgagc attctcagac ttgtgattgg ggtaattccc ttcaggacat tattctccaa  
240  
gtattttaaatt atttgectct tcttgaccgg gctcatgctt cacaagtttg ccgcaactgg  
300  
aaccagggtat ttcacatgcc tgacttgtgg agatgttttg aatttgaact gaatcagcca  
360  
gctacatctt atttgaagc tacccatcca gagctgatca aacagattat taaaagacat  
420  
tcaaaccatc tacaatatgt cagcttcaag gtggacagca gcaaggaatc agctgaagca  
480  
gcttgtgata tactatcgca acttgtgaat tgctctttaa aaacacttgg acttatttca  
540  
actgtctgac caagctttat ggattacca aagtctcact ttatctctgc actgacagtt  
600  
gtgttcgtaa actccaaatc cctgtcttcg cttaagatag atgatactcc agtagatgat  
660  
ccatctctca aagtactagt ggccaacaat agtgatacac tcaagctgtt gaaaatgagc  
720  
agctgtcttc atgtctctcc agcaggatc ctttgtgtgg ctgatcagtg tcacggctta  
780  
agagaactag cccctgaacta ccacttattg agtgatgagt tggtacttgc attgtcttct  
840  
gaaaaacatg ttcgattaga acatttgcgc attgatgtag tcagtgaaga tcctggacag  
900  
acacacttcc atactattca gaagagtagc tgggatgctt tcatcagaca ttcacccaaa  
960  
gtgaacttag tgatgtattt ttttttatat gaagaagaat ttgacccctt ctttcgctat  
1020  
gaaataacctg ccacccatct gtactttggg agatcagtaa gcaaagatgt gcttggccgt  
1080  
gtgggaatga catgccctag actggttgaa ctagtagtgt gtgcaaatgg attacggcca  
1140  
cttgatgaag agttaattcg cattgcagaa cgttgcaaaa atttgcagc tattggacta  
1200  
gggggaatgtg aagtctcatg tagtgccttt gttgagtttg tgaagatgtg tggtagccgc  
1260  
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Gly Thr Lys Lys Ser Ser Thr Met Asn Asp Leu Val Gln Ser Met Val  
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260 265 270  
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 Leu His Asp His Glu Ala Trp Ser Ser Ser Gly Ser Ser Pro Ile Gln  
 305                      310                      315                      320  
 Tyr Leu Lys Arg Gln Thr Arg Ser Ser Pro Val Leu Gln His Lys Ile  
 325                      330                      335  
 Ser Glu Thr Leu Glu Ser Arg His His Lys Ile Lys Thr Gly Ser Pro  
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 Gly Ser Glu Val Val Thr Leu Gln Gln Phe Leu Glu Glu Ser Asn Lys  
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 Leu Thr Ser Val Gln Ile Lys Ser Ser Ser Gln Glu Asn Leu Leu Asp  
 370                      375                      380  
 Glu Val Met Lys Ser Leu Ser Val Ser Ser Asp Phe Leu Gly Lys Asp  
 385                      390                      395                      400  
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 Gly Asp Phe Tyr Asp Arg Arg Thr Thr Lys Pro Glu Phe Leu Arg Pro  
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 Pro Thr Pro Gly Thr Gln Gly Lys Ile Lys Leu Val Lys Glu Ser Ser  
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&lt;210&gt; 3517

&lt;211&gt; 342

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3517

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 Ile Val Ala Ser Phe Val Leu Ala Gly Glu Thr Glu Ala Thr Ala Leu  
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 <211> 2207  
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 <213> Homo sapiens

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<211> 303  
<212> PRT  
<213> Homo sapiens

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 35 40 45  
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 50 55 60  
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 65 70 75 80  
 Pro Thr Thr Val Pro Ser Pro Ala Ser Gly Lys Pro Ser Ser Glu Pro  
 85 90 95  
 Pro Pro Ala Pro Glu Ser Ala Ala Asp Ser Gly Val Glu Glu Ala Asp  
 100 105 110  
 Thr Arg Ser Ser Ser Asp Pro His Leu Glu Thr Thr Ser Thr Ile Ser  
 115 120 125  
 Thr Val Ser Ser Met Ser Thr Leu Ser Ser Glu Ser Gly Glu Leu Thr  
 130 135 140  
 Asp Thr His Thr Ser Phe Ala Asp Gly His Thr Phe Leu Leu Glu Lys  
 145 150 155 160  
 Pro Pro Val Pro Pro Lys Pro Lys Leu Lys Ser Pro Leu Gly Lys Gly  
 165 170 175  
 Pro Val Thr Phe Arg Asp Pro Leu Leu Lys Gln Ser Ser Asp Ser Glu  
 180 185 190  
 Leu Met Ala Gln Gln His His Ala Ala Ser Ala Gly Leu Ala Ser Ala  
 195 200 205  
 Ala Gly Pro Ala Arg Pro Arg Tyr Leu Phe Gln Arg Arg Ser Lys Leu  
 210 215 220  
 Trp Gly Asp Pro Val Glu Ser Arg Gly Leu Pro Gly Pro Glu Asp Asp  
 225 230 235 240  
 Lys Pro Thr Val Ile Ser Glu Leu Ser Ser Arg Leu Gln Gln Leu Asn  
 245 250 255  
 Lys Asp Thr Arg Ser Leu Gly Glu Glu Pro Val Gly Gly Leu Gly Ser  
 260 265 270  
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<210> 3521  
 <211> 638  
 <212> DNA  
 <213> Homo sapiens

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 180  
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<210> 3522

<211> 181

<212> PRT

<213> Homo sapiens

<400> 3522

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 Gln His Ala Asp Gln Gly Pro Pro Gly Pro His Leu Asp Leu His Gln  
 35 40 45  
 Asp Leu Gln Ala Glu Pro Leu Arg Pro Ala Gly Leu Gly Gly Leu  
 50 55 60  
 Leu Arg Cys Gly Leu Pro Ser Glu Gln Arg Ala Ala Gly Glu Ala Arg  
 65 70 75 80  
 Gly Leu His Leu Leu Gln Asp Pro Thr Pro Gly Arg Leu Cys Gln Ala  
 85 90 95  
 Pro Ala Gly Pro Pro Gly Gly Gly His Gly Pro Ala Gly Arg Gly Gln  
 100 105 110  
 Pro Ser Arg His Arg Pro Gly Glu Pro Gln Gly Gly Arg Gly Gly Xaa  
 115 120 125  
 Pro Asp Pro Ser Thr Pro Ser Val Arg Gly Ser Gln Arg Thr Ala Ser  
 130 135 140  
 Pro Gly Arg Ala Ser Pro Gly Gly Cys Pro Glu Ala Thr Gly Trp Cys  
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<210> 3523

<211> 2614

<212> DNA

<213> Homo sapiens

<400> 3523

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<210> 3524

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3524

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Glu	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Ser	Asp	Phe
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Ser	Arg	Arg	His	Pro	Gly	Gly	Ser	Arg	Val	Ile	Ser	His	Tyr	Ala	Gly
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Gln	Asp	Ala	Thr	Asp	Pro	Phe	Val	Ala	Phe	His	Ile	Asn	Lys	Gly	Leu
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Val	Lys	Lys	Tyr	Met	Asn	Ser	Leu	Leu	Ile	Gly	Glu	Leu	Ser	Pro	Glu
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Gln	Pro	Ser	Phe	Glu	Pro	Thr	Lys	Asn	Lys	Glu	Leu	Thr	Asp	Glu	Phe
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Arg	Glu	Leu	Arg	Ala	Thr	Val	Glu	Arg	Met	Gly	Leu	Met	Lys	Ala	Asn

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165              170              175
Leu Gln His Asp Phe Gly His Leu Ser Val Phe Ser Thr Ser Lys Trp
180              185              190
Asn His Leu Leu His His Phe Val Ile Gly His Leu Lys Gly Ala Pro
195              200              205
Ala Ser Trp Trp Asn His Met His Phe Gln His His Ala Lys Pro Asn
210              215              220
Cys Phe Arg Lys Asp Pro Asp Ile Asn Met His Pro Phe Phe Phe Ala
225              230              235              240
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245              250              255
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260              265              270
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275              280              285
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290              295              300
Arg Phe Phe Leu Thr Tyr Val Pro Leu Leu Gly Leu Lys Ala Phe Leu
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325              330              335
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Met Asp Trp Val Ser Thr Gln Leu Gln Ala Thr Cys Asn Val His Lys
355              360              365
Ser Ala Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
370              375              380
His His Leu Phe Pro Thr Met Pro Arg His Asn Tyr His Lys Val Ala
385              390              395              400
Pro Leu Val Gln Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Ser
405              410              415
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 <211> 1116  
 <212> DNA  
 <213> Homo sapiens

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<210> 3526

<211> 304

<212> PRT

<213> Homo sapiens

<400> 3526

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 35 40 45  
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 Asp Trp Ile Lys Arg Cys Gln Glu Ala Gln Asn Gly Ser Glu Ser Glu  
 65 70 75 80  
 Val Val Met Glu Pro Ala Leu Glu Gly Thr Gly Lys Glu Gly Lys Lys  
 85 90 95  
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 Leu Gln Pro Val Lys Leu Ser Arg Ala Glu Leu Tyr Lys Glu Pro Thr

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Ser Glu Lys Lys Lys Asp Arg Ile Asp Ala Phe Leu Arg Glu Val Asn
      165              170              175
Gln Arg Val Val Arg Val Pro Ser Val Pro Glu Thr Glu Leu Thr Asp
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Gln Ala Trp Leu Pro Ala Gly Val Arg Val Pro Leu His Gln Val Pro
      195              200              205
Tyr Ala Val Lys Gly Cys Phe Arg Phe Leu Pro Pro Ala Gln Val Thr
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Val Asp Val Ala Leu Thr Met Pro Arg Glu Ile Leu Gln Asp Lys Asp
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Gly Leu Asn Gln Arg Tyr Phe Arg Lys Arg Ala Leu Tyr Leu Ala His
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<213> Homo sapiens

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<211> 281

<212> PRT

<213> Homo sapiens

<400> 3528

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<211> 206

<212> PRT

<213> Homo sapiens

<400> 3530

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Cys	Xaa	Ser	Pro	Val	Ala	Gly	Val	Ala	His	Arg	Phe	His	Ser	Thr	Cys
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Val	Ala	Gly	Arg	Gly	Gly	Leu	Asn	Ile	Val	Arg	Pro	Cys	Pro	Thr	Ser
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<212> DNA

<213> Homo sapiens

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&lt;210&gt; 3532

&lt;211&gt; 254

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3532

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 50 55 60  
 Glu Asn Glu Ser Gly Phe Trp Asp Ser Phe Lys Trp Gly Phe Thr Gly  
 65 70 75 80  
 Gln Lys Thr Glu Glu Val Lys Gln Asp Lys Asp Asp Ile Ile Asn Ile  
 85 90 95  
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 100 105 110  
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 115 120 125  
 Leu Lys Asn Tyr Leu Ser Pro Thr Phe Lys Glu Phe Ile Pro Tyr Met  
 130 135 140  
 Ala Asn Glu Tyr Asn Phe Gln Tyr Glu Leu Val Gln Tyr Lys Trp Pro  
 145 150 155 160  
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 Lys Ile Leu Phe Leu Asp Val Leu Phe Pro Leu Val Val Asp Lys Phe

				180					185					190	
Leu	Phe	Val	Asp	Ala	Asp	Gln	Ile	Val	Arg	Thr	Asp	Leu	Lys	Glu	Leu
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Arg	Asp	Phe	Asn	Leu	Asp	Gly	Ala	Pro	Tyr	Gly	Tyr	Thr	Pro	Phe	Cys
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Asp	Ser	Arg	Arg	Glu	Met	Asp	Gly	Tyr	Arg	Phe	Trp	Lys	Ser	Gly	Tyr
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Lys His Gly Ala Ile Pro Gly Gly Leu Ser Ile Gly Pro Pro Gly Lys  
50 55 60  
Ser Ser Ile Asp Asp Ser Tyr Gly Arg Tyr Asp Leu Ile Gln Asn Ser  
65 70 75 80  
Glu Ser Pro Ala Ser Pro Pro Val Ala Val Pro His Ser Trp Ser Arg  
85 90 95  
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Pro Pro Glu Phe His Pro Gly Val Pro Trp Lys Gly Leu Gln Asn Ile  
115 120 125  
Asp Pro Glu Asn Asp Pro Asp Val Thr Pro Gly Ser Val Pro Thr Gly  
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Pro Thr Ile Asn Thr Thr Ile Gln Asp Val Asn Arg Tyr Leu Leu Lys  
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Ser Gly Gly Ser Ser Pro Pro Ser Ser Gln Asn Ala Thr Leu Pro Ser  
165 170 175  
Ser Ser Ala Trp Pro Leu Ser Ala Ser Gly Tyr Ser Ser Ser Phe Ser  
180 185 190  
Ser Ile Ala Ser Ala Pro Ser Val Ala Gly Lys Leu Ser Asp Ile Lys  
195 200 205  
Ser Thr Trp Ser Ser Gly Pro Thr Ser His Thr Gln Ala Ser Leu Ser  
210 215 220  
His Glu Leu Trp Lys Val Pro Arg Asn Ser Thr Ala Pro Thr Arg Pro  
225 230 235 240  
Pro Pro Gly Leu Thr Asn Pro Lys Pro Ser Ser Thr Trp Gly Ala Ser  
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Pro Leu Gly Trp Thr Ser Ser Tyr Ser Ser Gly Ser Ala Trp Ser Thr  
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Asp Thr Ser Gly Arg Thr Ser Ser Trp Leu Val Leu Arg Asn Leu Thr  
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Pro Gln Val Gln Tyr Gly Ala Pro Ala Ser Leu Ser Met Ile Gln Gly  
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Gly Phe Pro Leu Gly Pro Gln Cys Arg  
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<210> 3535  
<211> 723  
<212> DNA  
<213> Homo sapiens

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<210> 3536  
 <211> 163  
 <212> PRT  
 <213> Homo sapiens

<400> 3536  
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 Arg Val Ser Leu Leu Leu Tyr Tyr Ile Ile His Gln Glu Glu Ile  
 35 40 45  
 Cys Ser Ser Lys Leu Asn Met Ser Asn Lys Glu Tyr Lys Phe Tyr Leu  
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 His Ser Leu Leu Ser Leu Arg Gln Asp Glu Asp Ser Ser Phe Leu Ser  
 65 70 75 80  
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 85 90 95  
 Thr Ser Gln Ser Gln Cys Met Glu Thr Lys Thr Leu Gln Lys Lys Ser  
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 Gly Ile Val Ser Ser Glu Gly Ala Asn Glu Ser Thr Leu Pro Gln Leu  
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<211> 714  
<212> DNA  
<213> Homo sapiens

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<210> 3538  
<211> 154  
<212> PRT  
<213> Homo sapiens

<400> 3538  
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 35 40 45  
 Gln Gly Val Ala Pro Gly Phe Arg His Ala Thr Thr Thr Arg Ala Arg  
 50 55 60  
 Ala Thr His Ala Ser Cys Ala His Leu Thr His Thr Pro Leu Pro Gly  
 65 70 75 80  
 His Ala Asp Thr Pro Gln Pro His Thr Ser His Ala Val His Leu Arg  
 85 90 95  
 Leu Leu Thr Ser His Ala Gln Cys Trp Cys Thr Phe Ala Ser His Met

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Leu Pro Ser Pro Pro Thr Gln Gly His Pro Thr Ala Pro Pro Cys Pro
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Cys Pro Ser Pro Ser Leu Glu Val Pro Cys Pro Ala Gly Pro Val Asn
      130      135      140
Met Gln Trp Glu Ser Gln Ala Val Gln Trp
      145      150

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&lt;210&gt; 3539

&lt;211&gt; 818

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3539

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818

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&lt;210&gt; 3540

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3540

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Ser Val Cys Leu Asp Ala Ala Ala Asp Cys His Pro Tyr Pro Ala Ser
 1           5           10          15
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 20          25          30
Thr Leu Gly Ser Ser Arg Ala Lys Leu Gly Asn Phe Pro Trp Gln Ala

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 Trp Ile Leu Thr Ala Ala His Thr Val Tyr Pro Lys Asp Ser Val Ser  
 65 70 75 80  
 Leu Arg Lys Asn Gln Ser Val Asn Val Phe Leu Gly His Thr Ala Ile  
 85 90 95  
 Asp Glu Met Leu Lys Leu Gly Asn His Pro Val His Arg Val Val Val  
 100 105 110  
 His Pro Asp Tyr Arg Gln Asn Glu Ser His Asn Phe Ser Gly Asp Ile  
 115 120 125  
 Ala Leu Leu Glu Leu Gln His Ser Ile Pro Leu Gly Pro Asn Val Leu  
 130 135 140  
 Pro Val Cys Leu Pro Asp Asn Glu Thr Leu Tyr Arg Ser Gly Leu Leu  
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 Leu Lys Tyr Ser  
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<210> 3541  
 <211> 722  
 <212> DNA  
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<210> 3542

<211> 153  
 <212> PRT  
 <213> Homo sapiens

<400> 3542  
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 35 40 45  
 Arg Gln Glu Pro Asp Asn Thr Gly Val Leu Leu Leu Leu Ser Ser Ile  
 50 55 60  
 His Phe Gln Cys Arg Arg Leu Asp Arg Ser Ala His Phe Ser Thr Leu  
 65 70 75 80  
 Ala Ile Lys Gln Asn Pro Leu Leu Ala Glu Ala Tyr Ser Asn Leu Gly  
 85 90 95  
 Asn Val Tyr Lys Glu Arg Gly Gln Leu Gln Glu Ala Ile Glu His Tyr  
 100 105 110  
 Arg His Ala Leu Arg Leu Lys Pro Asp Phe Ile Asp Gly Tyr Ile Asn  
 115 120 125  
 Ala Ala Ala Ala Leu Val Ala Ala Gly Asp Met Glu Gly Ala Val Gln  
 130 135 140  
 Ala Tyr Val Ser Ala Leu Gln Pro Gly  
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<210> 3543  
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 <212> DNA  
 <213> Homo sapiens

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<210> 3544

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3544

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 Lys Ile Val Leu Phe Pro His Tyr Glu Glu Gly His Ile Pro Gly Ile  
 35 40 45  
 Leu Ile Ile Ile Phe Tyr Gly Ile Ser Ile Phe Cys Leu Val Ala Leu  
 50 55 60  
 Val Arg Ala Ser Ile Thr Asp Pro Gly Arg Leu Pro Glu Asn Pro Lys  
 65 70 75 80  
 Ile Pro His Gly Glu Arg Glu Phe Trp Glu Leu Cys Asn Lys Cys Asn  
 85 90 95  
 Leu Met Arg Pro Lys Arg Ser His His Cys Ser Arg Cys Gly His Cys  
 100 105 110  
 Val Arg Arg Met Asp His His Cys Pro Trp Ile Asn Asn Cys Val Gly  
 115 120 125  
 Glu Asp Asn His Trp Leu Phe Leu Gln Leu Cys Phe Tyr Thr Glu Leu  
 130 135 140  
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 145 150 155 160  
 Leu Pro Leu Lys Lys Arg Asn Leu Asp Leu Phe Val Phe Arg His Glu  
 165 170 175  
 Leu Ala Ile Met Arg Leu Ala Ala Phe Met Gly Ile Thr Met Leu Val  
 180 185 190  
 Gly Ile Thr Gly Leu Phe Tyr Thr Gln Leu Ile Gly Ile Ile Thr Pro  
 195 200 205  
 Cys Ser Leu Ile Leu Leu Lys Cys Gly Ser Val Ser Asn Asn Ser Leu

210	215	220
Gly Asp Leu Met Lys Ile Ser Glu Thr Phe Ala Leu Arg Ile Pro Ser		
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Phe Val Val Met Cys Pro Glu Asn Ser Ser Leu Arg Val Phe Asn Ser		240
	245	250
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 <212> DNA  
 <213> Homo sapiens

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<211> 792

<212> PRT

<213> Homo sapiens

<400> 3546

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 35 40 45  
 Asp Glu Cys Cys Ser Val His Arg Ser Leu Gly Arg His Ile Ser Ile  
 50 55 60  
 Val Lys His Leu Arg His Ser Ala Trp Pro Pro Thr Leu Leu Gln Met  
 65 70 75 80  
 Val His Thr Leu Ala Ser Asn Gly Ala Asn Ser Ile Trp Glu His Ser  
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 Gln Asp Lys Val His Pro Ile Lys Ser Glu Phe Ile Arg Ala Lys Tyr  
 115 120 125  
 Gln Met Leu Ala Phe Val His Lys Leu Pro Cys Arg Asp Asp Asp Gly

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130          135          140
Val Thr Ala Lys Asp Leu Ser Lys Gln Leu His Ser Ser Val Arg Thr
145          150          155          160
Gly Asn Leu Glu Thr Cys Leu Arg Leu Leu Ser Leu Gly Ala Gln Ala
165          170          175
Asn Phe Phe His Pro Glu Lys Gly Thr Thr Pro Leu His Val Ala Ala
180          185          190
Lys Ala Gly Gln Thr Leu Gln Ala Glu Leu Leu Val Val Tyr Gly Ala
195          200          205
Asp Pro Gly Ser Pro Asp Val Asn Gly Arg Thr Pro Ile Asp Tyr Ala
210          215          220
Arg Gln Ala Gly His His Glu Leu Ala Glu Arg Leu Val Glu Cys Gln
225          230          235          240
Tyr Glu Leu Thr Asp Arg Leu Ala Phe Tyr Leu Cys Gly Arg Lys Pro
245          250          255
Asp His Lys Asn Gly His Tyr Ile Ile Pro Gln Met Ala Asp Arg Ser
260          265          270
Arg Gln Lys Cys Met Ser Gln Ser Leu Asp Leu Ser Glu Leu Ala Lys
275          280          285
Ala Ala Lys Lys Lys Leu Gln Ala Leu Ser Asn Arg Leu Phe Glu Glu
290          295          300
Leu Ala Met Asp Val Tyr Asp Glu Val Asp Arg Arg Glu Asn Asp Ala
305          310          315          320
Val Trp Leu Ala Thr Gln Asn His Ser Thr Leu Val Thr Glu Arg Ser
325          330          335
Ala Val Pro Phe Leu Pro Val Asn Pro Glu Tyr Ser Ala Thr Arg Asn
340          345          350
Gln Gly Arg Gln Lys Leu Ala Arg Phe Asn Ala Arg Glu Phe Ala Thr
355          360          365
Leu Ile Ile Asp Ile Leu Ser Glu Ala Lys Arg Arg Gln Gln Gly Lys
370          375          380
Ser Leu Ser Ser Pro Thr Asp Asn Leu Glu Leu Ser Leu Arg Ser Gln
385          390          395          400
Ser Asp Leu Asp Asp Gln His Asp Tyr Asp Ser Val Ala Ser Asp Glu
405          410          415
Asp Thr Asp Gln Glu Pro Leu Arg Ser Thr Gly Ala Thr Arg Ser Asn
420          425          430
Arg Ala Arg Ser Met Asp Ser Ser Asp Leu Ser Asp Gly Ala Val Thr
435          440          445
Leu Gln Glu Tyr Leu Glu Leu Lys Lys Ala Leu Ala Thr Ser Glu Ala
450          455          460
Lys Val Gln Gln Leu Met Lys Val Asn Ser Ser Leu Ser Asp Glu Leu
465          470          475          480
Arg Arg Leu Gln Arg Glu His Phe Ala Pro Ile Ile His Lys Leu Gln
485          490          495
Ala Glu Asn Leu Gln Leu Arg Gln Pro Pro Gly Pro Val Pro Thr Pro
500          505          510
Pro Leu Pro Ser Glu Arg Ala Glu His Thr Pro Met Ala Pro Gly Gly
515          520          525
Ser Thr His Arg Arg Asp Arg Gln Ala Phe Ser Met Tyr Glu Pro Gly
530          535          540
Ser Ala Leu Lys Pro Phe Gly Gly Pro Pro Gly Asp Glu Leu Thr Thr
545          550          555          560
Arg Leu Gln Pro Phe His Ser Thr Glu Leu Glu Asp Asp Ala Ile Tyr

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565										570					575					
Ser	Val	His	Val	Pro	Ala	Gly	Leu	Tyr	Arg	Ile	Arg	Lys	Gly	Val	Ser					
580										585					590					
Ala	Ser	Ala	Val	Pro	Phe	Thr	Pro	Ser	Ser	Pro	Leu	Leu	Ser	Cys	Ser					
595										600					605					
Gln	Glu	Gly	Ser	Arg	His	Thr	Ser	Lys	Leu	Ser	Arg	His	Gly	Ser	Gly					
610										615					620					
Ala	Asp	Ser	Asp	Tyr	Glu	Asn	Thr	Gln	Ser	Gly	Asp	Pro	Leu	Leu	Gly					
625										630					635					
Leu	Glu	Gly	Lys	Arg	Phe	Leu	Glu	Leu	Gly	Lys	Glu	Glu	Asp	Phe	His					
645										650					655					
Pro	Glu	Leu	Glu	Ser	Leu	Asp	Gly	Asp	Leu	Asp	Pro	Gly	Leu	Pro	Ser					
660										665					670					
Thr	Glu	Asp	Val	Ile	Leu	Lys	Thr	Glu	Gln	Val	Thr	Lys	Asn	Ile	Gln					
675										680					685					
Glu	Leu	Leu	Arg	Ala	Ala	Gln	Glu	Phe	Lys	His	Asp	Ser	Phe	Val	Pro					
690										695					700					
Cys	Ser	Glu	Lys	Ile	His	Leu	Ala	Val	Thr	Glu	Met	Ala	Ser	Leu	Phe					
705										710					715					
Pro	Lys	Arg	Pro	Ala	Leu	Glu	Pro	Val	Arg	Ser	Ser	Leu	Arg	Leu	Leu					
725										730					735					
Asn	Ala	Ser	Ala	Tyr	Arg	Leu	Gln	Ser	Glu	Cys	Arg	Lys	Thr	Val	Pro					
740										745					750					
Pro	Glu	Pro	Gly	Ala	Pro	Val	Asp	Phe	Gln	Leu	Leu	Thr	Gln	Gln	Val					
755										760					765					
Ile	Gln	Cys	Ala	Tyr	Asp	Ile	Ala	Lys	Ala	Ala	Lys	Gln	Leu	Val	Thr					
770										775					780					
Ile	Thr	Thr	Arg	Glu	Lys	Lys	Gln													
785										790										

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<210> 3547
<211> 1039
<212> DNA
<213> Homo sapiens
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120
agtcataaaa taaacccaag gaaagttttt gaacttatgg gaagcattgt cactgagatt
180
gcttgtggac ggcagcacac ttctgctttt gttccttcac caggacgaat ttactctttt
240
gggctgtgtg gtaatgggca gctgggaacc ggttcaacaa gcaacaggaa aagcccccctt
300
actgtaaaaa gaaattggta cccctataat gggcagtgtc taccagatat tgattctgaa
360
gaatatcttc gtgtaaaaag aattttctca gggggagatc aaagcttttc acattactct
420
agtccccaga actgtgggcc accagatgac ttcagatgtc ccaatccgac aaagcagatc
480
tggacagtga atgaagctct aattcagaaa tggctgagct atccttctgt aagggttctct
540
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gtggagatag ccaatgagat agatggaacg tttcttcct ctggtgcct aaatggaagt  
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 660  
 atgaatgctg ctaggctttt attccacaaa cttatacaac ctgatcatcc gcagatatct  
 720  
 cagcaggtgg cagctagttt ggaaaagaat cttattccta aactgactag ctccttacct  
 780  
 gatgttgaag cattgagggt ttatcttact ctaccagaat gtccctgat gagtgattec  
 840  
 aacaatttca taacaatagc aattcccttt ggtacagctc ttgtgaacct agaaaaggca  
 900  
 ccactgaaag tacttgaaaa ctggtggtca gtacttgaac ctccactatt cctcaagata  
 960  
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 1020  
 ccttctgaaa gaataatta  
 1039

<210> 3548

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3548

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 Ala Leu Thr Lys Glu Gly Gly Val Phe Thr Phe Gly Ala Gly Gly Tyr  
 20 25 30  
 Gly Gln Leu Gly His Asn Ser Thr Ser His Glu Ile Asn Pro Arg Lys  
 35 40 45  
 Val Phe Glu Leu Met Gly Ser Ile Val Thr Glu Ile Ala Cys Gly Arg  
 50 55 60  
 Gln His Thr Ser Ala Phe Val Pro Ser Ser Gly Arg Ile Tyr Ser Phe  
 65 70 75 80  
 Gly Leu Gly Gly Asn Gly Gln Leu Gly Thr Gly Ser Thr Ser Asn Arg  
 85 90 95  
 Lys Ser Pro Phe Thr Val Lys Gly Asn Trp Tyr Pro Tyr Asn Gly Gln  
 100 105 110  
 Cys Leu Pro Asp Ile Asp Ser Glu Glu Tyr Phe Cys Val Lys Arg Ile  
 115 120 125  
 Phe Ser Gly Gly Asp Gln Ser Phe Ser His Tyr Ser Ser Pro Gln Asn  
 130 135 140  
 Cys Gly Pro Pro Asp Asp Phe Arg Cys Pro Asn Pro Thr Lys Gln Ile  
 145 150 155 160  
 Trp Thr Val Asn Glu Ala Leu Ile Gln Lys Trp Leu Ser Tyr Pro Ser  
 165 170 175  
 Gly Arg Phe Pro Val Glu Ile Ala Asn Glu Ile Asp Gly Thr Phe Ser  
 180 185 190  
 Ser Ser Gly Cys Leu Asn Gly Ser Phe Leu Ala Val Ser Asn Asp Asp  
 195 200 205  
 His Tyr Arg Thr Gly Thr Arg Phe Ser Gly Val Asp Met Asn Ala Ala  
 210 215 220  
 Arg Leu Leu Phe His Lys Leu Ile Gln Pro Asp His Pro Gln Ile Ser

225                    230                    235                    240  
 Gln Gln Val Ala Ala Ser Leu Glu Lys Asn Leu Ile Pro Lys Leu Thr  
                          245                    250                    255  
 Ser Ser Leu Pro Asp Val Glu Ala Leu Arg Phe Tyr Leu Thr Leu Pro  
                          260                    265                    270  
 Glu Cys Pro Leu Met Ser Asp Ser Asn Asn Phe Ile Thr Ile Ala Ile  
                          275                    280                    285  
 Pro Phe Gly Thr Ala Leu Val Asn Leu Glu Lys Ala Pro Leu Lys Val  
                          290                    295                    300  
 Leu Glu Asn Trp Trp Ser Val Leu Glu Pro Pro Leu Phe Leu Lys Ile  
 305                    310                    315                    320  
 Val Glu Leu Phe Lys Glu Val Val Val His Leu Leu Lys Leu Tyr Lys  
                          325                    330                    335  
 Ile Gly Ile Pro Pro Ser Glu Arg Ile Ile  
                          340                    345

&lt;210&gt; 3549

&lt;211&gt; 2542

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 3549  
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 ggacatatgg taatactaga ccaaaactaaa ggagatcatt gtagaccatc aagaagagga  
 120  
 agatatgaga aaattcatgg aagaagtaag gaaaaggaga gagctagtct agataaaaaa  
 180  
 agagataaag actacagaag gaaagagatc ttgccttttg aaaagatgaa ggaacaaagg  
 240  
 ttgagagaac atttagttcg ttttgaaagg ctgcgacgag caatggaact tcgaagacga  
 300  
 agagagattg cagagagaga gcgtcgagag cgagaacgca ttagaataat tcgtgaacgg  
 360  
 gaagaacggg aacgcttaca gagagagaga gagcgcttag aaattgaaag gcaaaaaacta  
 420  
 gagagagaga gaatggaacg cgaacgcttg gaaagggaac gcattcgtat tgaacaggaa  
 480  
 cgctgtaagg aagctgaacg gattgctcga gaaagagagg aactcagaag gcaacaacag  
 540  
 cagcttcggt atgaacaaga aaaaaggaat tccttgaaac gccacgtga ttagatcat  
 600  
 aggcgagatg atccttactg gagcgagaat aaaaagttgt ctctagatac agatgcacga  
 660  
 tttggccatg gatccgacta ctctcgccaa cagaacagat ttaatgactt tgatcaccga  
 720  
 gagaggggca ggtttcctga gagttcagca gtacagtctt catcttttga aaggcgggat  
 780  
 cgctttgttg gtcaaaagtga ggggaaaaaa gcacgaccta ctgcacgaag ggaagatcca  
 840  
 agcttcgaaa gatatcccaa aaatttcagt gactccagaa gaaatgagcc tccaccacca  
 900  
 agaaatgaac ttagagaatc agacaggcga gaagtacgag gggagcgaga cgaaaggaga  
 960

acgggtgatta ttcacgacag gcctgatatc actcacccta gacatcctcg agaggcaggg  
1020  
cccaatccct ccagaccac cagctggaaa agtgatggaa gcatgtccac tgacaaacgg  
1080  
gaaacaagag ttgaaaggcc agaaccgatct gggagagaag taccaggga cagtgtgaga  
1140  
ggcgctcccc ctgggaatcg tagcagcgct tcgggggtacg ggagcagaga gggagacaga  
1200  
ggagtcacga cagaccgagg aggtggatca cagcactatc ctgaggagcg acatgtgggt  
1260  
gaacgccatg gacgggacac aagcggacca aggaaagagt ggcattgtcc accctctcaa  
1320  
gggcctagct atcatgatac gaggcgaatg ggtgacggcc gggcaggagc aggcattgata  
1380  
acccaacatt caagtaacgc atcccaatt aatagaattg tacaatcag tggcaattcc  
1440  
atgccaaagag gaagtggctc cggatttaag ccatttaagg gtggacctcc gcgacgattc  
1500  
tgaaatgag ctctctgcca aggttttaag ataatttatt gaaatctctt gtaaacctta  
1560  
cttgactact tatgaagagg acctctgact tgcctgagag ttctgtcaga cttttctttt  
1620  
taaaaaattta acatgattgc ttttctcaat ttgggagaag atgtttaaat agttctgttg  
1680  
taacttttaa tagttttgtg tatcattcaa ctttttttct tgcagaccg aggcacattt  
1740  
gaaaagatgg aattgaagtc gttttgttta acgctgtgtg aatataaaga gtagtttgca  
1800  
gctgtgtggt agtggtttaa ttgcagcct tagctctgtg gtgtctggtc ctgagttac  
1860  
ttctttttac caagcatttt cagcctccat ttggaaggct gtctacactt aagaagtctt  
1920  
agctgtctaa tttttagaga ataagattgt tcattgcatt tctgagtatt atgtaacctt  
1980  
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2040  
atcttttttg aaataaacct tcatattctg tatagttgct aaagtgttga gaaccttttt  
2100  
aattgtaaaa tgagaaccga ttttcagttt agtgtagcag cacacttgtt caggtttgca  
2160  
tggatgaaa ccaaatagat tcatgaaacc ttggccatga ggtttgttc acaaggttct  
2220  
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2280  
aaattccatc tctgggaatt gtgtgggtat taatgtttcc atgttccaa ctatgttgag  
2340  
aagtggaaaa aaaccagggt tctagatggg tgaatcagtt gggttttgta aatacttgta  
2400  
tgtggggaag acattgttgt ctttttgta aaataaaat ccacacctgg aaaaaaaaaa  
2460  
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2520  
aaaaaaaaaa aaaaaaaaaa aa  
2542

<210> 3550  
 <211> 500  
 <212> PRT  
 <213> Homo sapiens

<400> 3550  
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 1 5 10 15  
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 20 25 30  
 His Cys Arg Pro Ser Arg Arg Gly Arg Tyr Glu Lys Ile His Gly Arg  
 35 40 45  
 Ser Lys Glu Lys Glu Arg Ala Ser Leu Asp Lys Lys Arg Asp Lys Asp  
 50 55 60  
 Tyr Arg Arg Lys Glu Ile Leu Pro Phe Glu Lys Met Lys Glu Gln Arg  
 65 70 75 80  
 Leu Arg Glu His Leu Val Arg Phe Glu Arg Leu Arg Arg Ala Met Glu  
 85 90 95  
 Leu Arg Arg Arg Arg Glu Ile Ala Glu Arg Glu Arg Arg Glu Arg Glu  
 100 105 110  
 Arg Ile Arg Ile Ile Arg Glu Arg Glu Glu Arg Glu Arg Leu Gln Arg  
 115 120 125  
 Glu Arg Glu Arg Leu Glu Ile Glu Arg Gln Lys Leu Glu Arg Glu Arg  
 130 135 140  
 Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Ile Arg Ile Glu Gln Glu  
 145 150 155 160  
 Arg Arg Lys Glu Ala Glu Arg Ile Ala Arg Glu Arg Glu Glu Leu Arg  
 165 170 175  
 Arg Gln Gln Gln Gln Leu Arg Tyr Glu Gln Glu Lys Arg Asn Ser Leu  
 180 185 190  
 Lys Arg Pro Arg Asp Val Asp His Arg Arg Asp Asp Pro Tyr Trp Ser  
 195 200 205  
 Glu Asn Lys Lys Leu Ser Leu Asp Thr Asp Ala Arg Phe Gly His Gly  
 210 215 220  
 Ser Asp Tyr Ser Arg Gln Gln Asn Arg Phe Asn Asp Phe Asp His Arg  
 225 230 235 240  
 Glu Arg Gly Arg Phe Pro Glu Ser Ser Ala Val Gln Ser Ser Ser Phe  
 245 250 255  
 Glu Arg Arg Asp Arg Phe Val Gly Gln Ser Glu Gly Lys Lys Ala Arg  
 260 265 270  
 Pro Thr Ala Arg Arg Glu Asp Pro Ser Phe Glu Arg Tyr Pro Lys Asn  
 275 280 285  
 Phe Ser Asp Ser Arg Arg Asn Glu Pro Pro Pro Pro Arg Asn Glu Leu  
 290 295 300  
 Arg Glu Ser Asp Arg Arg Glu Val Arg Gly Glu Arg Asp Glu Arg Arg  
 305 310 315 320  
 Thr Val Ile Ile His Asp Arg Pro Asp Ile Thr His Pro Arg His Pro  
 325 330 335  
 Arg Glu Ala Gly Pro Asn Pro Ser Arg Pro Thr Ser Trp Lys Ser Asp  
 340 345 350  
 Gly Ser Met Ser Thr Asp Lys Arg Glu Thr Arg Val Glu Arg Pro Glu  
 355 360 365  
 Arg Ser Gly Arg Glu Val Ser Gly His Ser Val Arg Gly Ala Pro Pro

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      370      375      380
Gly Asn Arg Ser Ser Ala Ser Gly Tyr Gly Ser Arg Glu Gly Asp Arg
385      390      395      400
Gly Val Ile Thr Asp Arg Gly Gly Gly Ser Gln His Tyr Pro Glu Glu
      405      410      415
Arg His Val Val Glu Arg His Gly Arg Asp Thr Ser Gly Pro Arg Lys
      420      425      430
Glu Trp His Gly Pro Pro Ser Gln Gly Pro Ser Tyr His Asp Thr Arg
      435      440      445
Arg Met Gly Asp Gly Arg Ala Gly Ala Gly Met Ile Thr Gln His Ser
      450      455      460
Ser Asn Ala Ser Pro Ile Asn Arg Ile Val Gln Ile Ser Gly Asn Ser
      465      470      475      480
Met Pro Arg Gly Ser Gly Ser Gly Phe Lys Pro Phe Lys Gly Gly Pro
      485      490      495
Pro Arg Arg Phe
      500

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<210> 3551  
 <211> 545  
 <212> DNA  
 <213> Homo sapiens

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<400> 3551
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120
tttcttgtga ctggctataa attccatgca gtgctggaat gtgctttca cagttagagt
180
gctgagcacc tgttttattt cacactccct tgattcctgg ggtaaatecc atctccgcag
240
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360
gacatgctgg ctgccttgaa gtccaggcag gaagctctgg aggaaccct gcgtcagagg
420
ctggaggaac tgaagaagct gtgtctccga gaagctgtaa gcctttccta gctcatcccg
480
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540
gtcat
545

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<210> 3552  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

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<400> 3552
Pro His Cys Leu Ser Thr Gly Ser Gln Glu Ser Asp Ser Ser Gln Ser
1      5      10      15
Ala Lys Lys Asp Met Leu Ala Ala Leu Lys Ser Arg Gln Glu Ala Leu

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20                      25                      30  
 Glu Glu Thr Leu Arg Gln Arg Leu Glu Glu Leu Lys Lys Leu Cys Leu  
                     35                      40                      45  
 Arg Glu Ala Val Ser Leu Ser  
                     50                      55

<210> 3553  
 <211> 1412  
 <212> DNA  
 <213> Homo sapiens

<400> 3553  
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 ggaagattta atgaaagggtt tattctgtct ctggcctctt gtaagaagtg tctcgtcatt  
 120  
 gatgaccagc tcaacatcct gcccatctcc tcccacgttg ccaccatgga ggcctgcct  
 180  
 cccagactc cggatgagag tcttggtcct tctgatctgg agctgaggga gttgaaggag  
 240  
 agcttgagg acaccagcc tgtgggtgtg ttggtggact gctgtaagac tctagaccag  
 300  
 gccaaagctg tcttgaaatt tatcgagggc atctctgaaa agaccctgag gactactgtt  
 360  
 gcactcacag ctgctcgagg acggggaaaa tctgcagccc tgggattggc gattgctggg  
 420  
 gcggtggcat ttgggtactc caatatcttt gttacctccc caagccctga taacctccat  
 480  
 actctgtttg aatttgtatt taaaggattt gatgctctgc aatatcagga acatctggat  
 540  
 tatgagatta tccagtctct aaatcctgaa ttaacaaag cagtgatcat agtgaatgta  
 600  
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 660  
 caggctgaac tagttgtgat tgatgaagct gccgccatcc cctccccctt ggtgaagagc  
 720  
 ctacttgccc cctaccttgt ttccatggca tccaccatca atggctatga gggcactggc  
 780  
 cggtcactgt cctcaagct aattcagcag ctccgtcaac agagcgccca gagccaggtc  
 840  
 agcaccactg ctgagaataa gaccacgacg acagccagat tggcatcagc gcggacactg  
 900  
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 960  
 ctgaatgact tgctgtgcct ggattgcctc aacatcactc ggatagcttc aggctgcccc  
 1020  
 ttgcctgaag cttgtgaact gtactatgtt aatagagata cctctttttg ctaccacaag  
 1080  
 gcctctgaag ttttctcca acggcttatg gccctctacg tggcttctca ctacaagaac  
 1140  
 tctccaatg atctccagat gctctccgat gcaccttctc accatctctt ctgcctctg  
 1200  
 cctcctgtgc ccccccacca gaatgccctt ccaaaagtgc ttgctgttat ccaggatatg  
 1260

gaacagagggc gtccttgtgg cagtgatttg gggaaccact gaggcacacag gaattagtgg  
 1320  
 cttataaact gcattgtggg agttttgaaa ctgtggagtc ctggctctgga accaaggggc  
 1380  
 tgggtctgct gagacaggtg actaggggtg ac  
 1412

<210> 3554

<211> 419

<212> PRT

<213> Homo sapiens

<400> 3554

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 Gln Asp Val Val Gly Arg Phe Asn Glu Arg Phe Ile Leu Ser Leu Ala  
 20 25 30  
 Ser Cys Lys Lys Cys Leu Val Ile Asp Asp Gln Leu Asn Ile Leu Pro  
 35 40 45  
 Ile Ser Ser His Val Ala Thr Met Glu Ala Leu Pro Pro Gln Thr Pro  
 50 55 60  
 Asp Glu Ser Leu Gly Pro Ser Asp Leu Glu Leu Arg Glu Leu Lys Glu  
 65 70 75 80  
 Ser Leu Gln Asp Thr Gln Pro Val Gly Val Leu Val Asp Cys Cys Lys  
 85 90 95  
 Thr Leu Asp Gln Ala Lys Ala Val Leu Lys Phe Ile Glu Gly Ile Ser  
 100 105 110  
 Glu Lys Thr Leu Arg Ser Thr Val Ala Leu Thr Ala Ala Arg Gly Arg  
 115 120 125  
 Gly Lys Ser Ala Ala Leu Gly Leu Ala Ile Ala Gly Ala Val Ala Phe  
 130 135 140  
 Gly Tyr Ser Asn Ile Phe Val Thr Ser Pro Ser Pro Asp Asn Leu His  
 145 150 155 160  
 Thr Leu Phe Glu Phe Val Phe Lys Gly Phe Asp Ala Leu Gln Tyr Gln  
 165 170 175  
 Glu His Leu Asp Tyr Glu Ile Ile Gln Ser Leu Asn Pro Glu Phe Asn  
 180 185 190  
 Lys Ala Val Ile Ile Val Asn Val Phe Arg Glu His Arg Gln Thr Ile  
 195 200 205  
 Gln Tyr Ile His Pro Ala Asp Ala Val Lys Leu Gly Gln Ala Glu Leu  
 210 215 220  
 Val Val Ile Asp Glu Ala Ala Ala Ile Pro Leu Pro Leu Val Lys Ser  
 225 230 235 240  
 Leu Leu Gly Pro Tyr Leu Val Phe Met Ala Ser Thr Ile Asn Gly Tyr  
 245 250 255  
 Glu Gly Thr Gly Arg Ser Leu Ser Leu Lys Leu Ile Gln Gln Leu Arg  
 260 265 270  
 Gln Gln Ser Ala Gln Ser Gln Val Ser Thr Thr Ala Glu Asn Lys Thr  
 275 280 285  
 Thr Thr Thr Ala Arg Leu Ala Ser Ala Arg Thr Leu His Glu Val Ser  
 290 295 300  
 Leu Gln Glu Ser Ile Arg Tyr Ala Pro Gly Asp Ala Val Glu Lys Trp  
 305 310 315 320  
 Leu Asn Asp Leu Leu Cys Leu Asp Cys Leu Asn Ile Thr Arg Ile Val

[illegible]

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<210> 3555
<211> 1038
<212> DNA
<213> Homo sapiens
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 120  
 atgaaccagg cgttgccagag gcgcttcgcc aaggggggtc agtacaacat gaagatagtg  
 180  
 atccggggag acaggaacac gggcaagaca gcgctgtggc accgcctgca gggccggccg  
 240  
 ttcgtggagg agtatatccc cacacaggag atccagggtca ccagcatcca ctggagctac  
 300  
 aagaccacgg atgacatcgt gaaggttgaa gtctgggatg tagtagacaa aggaaaatgc  
 360  
 aaaaagcgag gcgacggcct aaagatggag aacgaccccc aggaggcgga gtctgaaatg  
 420  
 gccctggatg ctgagttcct ggacgtgtac aagaactgca acgggggtgt catgatgttc  
 480  
 gacattacca agcagtgga cttcaattac attctccggg agcttccaaa agtgcccacc  
 540  
 cactgtccag tgtgcgtgct ggggaactac cgggacatgg gcgagcacc agtcatcnn  
 600  
 tgccggacgn acgtgcgtga cttcatcgac aacctggaca gacctccagg ttcctcctac  
 660  
 ttccgctatg ctgagrtctt catgaagaac agcttcggcc taaagtacct tcataagttc  
 720  
 ttcaatatcc catttttgca gcttcagagg gagacgtgt tgccggcagct ggagacgaac  
 780  
 cagctggaca tggacgccac gctggaggag ctgtcgtgtc agcaggagac ggaggaccag  
 840  
 aactacggca tcttctcgga gatgatggag gctcgcagcc gtggccatgc gtccccactg  
 900  
 gcggccaacg ggcagagccc atccccgggc tcccagtcac cagtgggtgc tgcaggcgct  
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ggttgccccca ccatacctc  
1038

<210> 3556

<211> 333

<212> PRT

<213> Homo sapiens

<400> 3556

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 1           5           10           15
Arg Asp Lys Asn Ile Pro Ala Gly Leu Gln Ser Met Asn Gln Ala Leu
 20           25           30
Gln Arg Arg Phe Ala Lys Gly Val Gln Tyr Asn Met Lys Ile Val Ile
 35           40           45
Arg Gly Asp Arg Asn Thr Gly Lys Thr Ala Leu Trp His Arg Leu Gln
 50           55           60
Gly Arg Pro Phe Val Glu Glu Tyr Ile Pro Thr Gln Glu Ile Gln Val
 65           70           75           80
Thr Ser Ile His Trp Ser Tyr Lys Thr Thr Asp Asp Ile Val Lys Val
 85           90           95
Glu Val Trp Asp Val Val Asp Lys Gly Lys Cys Lys Lys Arg Gly Asp
100           105           110
Gly Leu Lys Met Glu Asn Asp Pro Gln Glu Ala Glu Ser Glu Met Ala
115           120           125
Leu Asp Ala Glu Phe Leu Asp Val Tyr Lys Asn Cys Asn Gly Val Val
130           135           140
Met Met Phe Asp Ile Thr Lys Gln Trp Thr Phe Asn Tyr Ile Leu Arg
145           150           155           160
Glu Leu Pro Lys Val Pro Thr His Val Pro Val Cys Val Leu Gly Asn
165           170           175
Tyr Arg Asp Met Gly Glu His Arg Val Ile Xaa Cys Arg Thr Xaa Val
180           185           190
Arg Asp Phe Ile Asp Asn Leu Asp Arg Pro Pro Gly Ser Ser Tyr Phe
195           200           205
Arg Tyr Ala Glu Ser Ser Met Lys Asn Ser Phe Gly Leu Lys Tyr Leu
210           215           220
His Lys Phe Phe Asn Ile Pro Phe Leu Gln Leu Gln Arg Glu Thr Leu
225           230           235           240
Leu Arg Gln Leu Glu Thr Asn Gln Leu Asp Met Asp Ala Thr Leu Glu
245           250           255
Glu Leu Ser Val Gln Gln Glu Thr Glu Asp Gln Asn Tyr Gly Ile Phe
260           265           270
Leu Glu Met Met Glu Ala Arg Ser Arg Gly His Ala Ser Pro Leu Ala
275           280           285
Ala Asn Gly Gln Ser Pro Ser Pro Gly Ser Gln Ser Pro Val Val Pro
290           295           300
Ala Gly Ala Val Ser Thr Gly Ser Ser Ser Pro Gly Thr Ala Gln Pro
305           310           315           320
Ala Pro Gln Leu Pro Leu Asn Gly Cys Pro Thr Ile Leu
325           330
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<210> 3557

<211> 486

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3557

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ccggcattga tcaagtccat ctgggctatg gccataagcc aacaccagtt ctatctggac  
120  
agaaagcaga gtaagtccaa aatccatgca gcacgcagcc tgagtgagat cgccatcgac  
180  
ctgaccgaga cggggacgct gaagacctcg aagctggcca acatgggtag caaggggaag  
240  
atcatcagcg gcacgcagcg cagcctgctg tcttcaggat ctggtgccag gagacactgc  
300  
attctactcc caggtttctca ggaatcagat agctcgcagt cggccaagaa ggacatgctg  
360  
gctgccttga agtccaggca ggaagctctg gaggaaccc tgcgtcagag gctggaggaa  
420  
ctgaagaagc tgtgtctccg agaagctgag ctcacgggca agctgccagt agaatatccc  
480  
ctggat  
486

&lt;210&gt; 3558

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3558

Ser Val Thr Arg Arg Thr Phe Gly His Ser Gly Ile Ala Val His Thr  
1 5 10 15  
Trp Tyr Ala Cys Pro Ala Leu Ile Lys Ser Ile Trp Ala Met Ala Ile  
20 25 30  
Ser Gln His Gln Phe Tyr Leu Asp Arg Lys Gln Ser Lys Ser Lys Ile  
35 40 45  
His Ala Ala Arg Ser Leu Ser Glu Ile Ala Ile Asp Leu Thr Glu Thr  
50 55 60  
Gly Thr Leu Lys Thr Ser Lys Leu Ala Asn Met Gly Ser Lys Gly Lys  
65 70 75 80  
Ile Ile Ser Gly Ser Ser Gly Ser Leu Leu Ser Ser Gly Ser Gly Ala  
85 90 95  
Arg Arg His Cys Ile Leu Leu Pro Gly Ser Gln Glu Ser Asp Ser Ser  
100 105 110  
Gln Ser Ala Lys Lys Asp Met Leu Ala Ala Leu Lys Ser Arg Gln Glu  
115 120 125  
Ala Leu Glu Glu Thr Leu Arg Gln Arg Leu Glu Glu Leu Lys Lys Leu  
130 135 140  
Cys Leu Arg Glu Ala Glu Leu Thr Gly Lys Leu Pro Val Glu Tyr Pro  
145 150 155 160  
Leu Asp

&lt;210&gt; 3559

&lt;211&gt; 673

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3559

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 60  
 ggccgcggct ccccgccacc tgcggccatg gatgaggagc gcgccttcta catcgtccgg  
 120  
 gccggcggaag caggggctat cgagcgggtc ctgagggatt acagcgacaa gcatagggct  
 180  
 actttcaaat ttgaatcaac agatgaagat aaaagaaaga aactctgtga aggcataatt  
 240  
 aaagtcctta taaaggacat cccaacaaca tgtcaagtgt cctgcctgga agtactccgc  
 300  
 attctctcca gagacaaaaa ggttttagtt cctgtgacaa ctaaggaaaa tatgcagata  
 360  
 ctgctgcgac tagccaagct aaatgagtta gatgattctt tggagaaagt atcagagttc  
 420  
 ccagttattg tggagtcatt aaaatgtctg tgtaatatag tgttcaacag tcagatggca  
 480  
 cagcagctca gcctggaact taatcttgct gcaaagctct gtaacctcct gagaaagtgc  
 540  
 aaggaccgga aatttatcaa tgacattaag tgctttgact tgcgcttgct cttccttctg  
 600  
 tcacttttgc acaccgacat caggtcacia ttgcgctatg agctccaggg actaccgctg  
 660  
 ctaacgcaga tcg  
 673

&lt;210&gt; 3560

&lt;211&gt; 195

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3560

Met Asp Glu Glu Arg Ala Leu Tyr Ile Val Arg Ala Gly Glu Ala Gly  
 1 5 10 15  
 Ala Ile Glu Arg Val Leu Arg Asp Tyr Ser Asp Lys His Arg Ala Thr  
 20 25 30  
 Phe Lys Phe Glu Ser Thr Asp Glu Asp Lys Arg Lys Lys Leu Cys Glu  
 35 40 45  
 Gly Ile Phe Lys Val Leu Ile Lys Asp Ile Pro Thr Thr Cys Gln Val  
 50 55 60  
 Ser Cys Leu Glu Val Leu Arg Ile Leu Ser Arg Asp Lys Lys Val Leu  
 65 70 75 80  
 Val Pro Val Thr Thr Lys Glu Asn Met Gln Ile Leu Leu Arg Leu Ala  
 85 90 95  
 Lys Leu Asn Glu Leu Asp Asp Ser Leu Glu Lys Val Ser Glu Phe Pro  
 100 105 110  
 Val Ile Val Glu Ser Leu Lys Cys Leu Cys Asn Ile Val Phe Asn Ser  
 115 120 125  
 Gln Met Ala Gln Gln Leu Ser Leu Glu Leu Asn Leu Ala Ala Lys Leu  
 130 135 140  
 Cys Asn Leu Leu Arg Lys Cys Lys Asp Arg Lys Phe Ile Asn Asp Ile

145                      150                      155                      160  
 Lys Cys Phe Asp Leu Arg Leu Leu Phe Leu Leu Ser Leu Leu His Thr  
                          165                      170                      175  
 Asp Ile Arg Ser Gln Leu Arg Tyr Glu Leu Gln Gly Leu Pro Leu Leu  
                          180                      185                      190  
 Thr Gln Ile  
                          195

<210> 3561  
 <211> 523  
 <212> DNA  
 <213> Homo sapiens

<400> 3561  
 acgcgtgcct gtaggcagac gaggggccag tgggcagagc agacatgaat gccccctgaa  
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 ggctcacaga gctgactcag aagggccatt gtcacacact ggtaagagct gattctgagg  
 120  
 ggagggcatg agacgcctat tgcagagctg ctcaccagaa ggtcacagga atttagaaga  
 180  
 gaagctccta cctgcccccg atcatgcacg tggccactga ggatgccaga cgagggtgatg  
 240  
 ctggtctcat agagaatgta cccgaaggac tgtccatttc ccccatgac tggcaggttc  
 300  
 tccatgttga tgggcttttc agacttgatt ggctgcgtac agaagagatg gaggggtggg  
 360  
 caggctcagg aggagtgggg tcacagacag actctgcttg ggggctggca catgggggtgg  
 420  
 aagcggaggt ttggtgggtg ttttctactt tgacttctca ttgcactaaa catacaactc  
 480  
 tccaggggtga cggggaagag gagtggggca aaggggtgtg cac  
 523

<210> 3562  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 3562  
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 1                      5                      10                      15  
 Glu Asn Val Pro Glu Gly Leu Ser Ile Ser Pro Ile Asp Trp Gln Val  
                          20                      25                      30  
 Leu His Val Asp Gly Leu Phe Arg Leu Asp Trp Leu Arg Thr Glu Glu  
                          35                      40                      45  
 Met Glu Gly Trp Ala Gly Ser Gly Gly Val Gly Ser Gln Thr Asp Ser  
                          50                      55                      60  
 Ala Trp Gly Leu Ala His Gly Val Glu Ala Glu Val Trp Trp Val Phe  
 65                      70                      75                      80  
 Ser Thr Leu Thr Ser His Cys Thr Lys His Thr Thr Leu Gln Gly Asp  
                          85                      90                      95  
 Gly Glu Glu Glu Trp Gly Lys Gly Val Cys  
                          100                      105

<210> 3563  
 <211> 359  
 <212> DNA  
 <213> Homo sapiens

<400> 3563  
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 120  
 cccctgccgc cgtcgacggg gccccagtg ggcgcgggccc tggacgcgga gcagcgcacg  
 180  
 gtgttcgcct tcgtgctctg cctgctcgtg gtgctgggtc tgttgatggt gcgctgcgtg  
 240  
 cgcacccctgc tcgacccta cagccgcatg cccgcctcgt cctggaccga ccacaaggag  
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 359

<210> 3564  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 3564  
 Met Ser Ala Thr Trp Thr Leu Ser Pro Glu Pro Leu Pro Pro Ser Thr  
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 Gly Pro Pro Val Gly Ala Gly Leu Asp Ala Glu Gln Arg Thr Val Phe  
 20 25 30  
 Ala Phe Val Leu Cys Leu Leu Val Val Leu Leu Met Val Arg  
 35 40 45  
 Cys Val Arg Ile Leu Leu Asp Pro Tyr Ser Arg Met Pro Ala Ser Ser  
 50 55 60  
 Trp Thr Asp His Lys Glu Ala Leu Glu Arg Gly Gln Phe Asp Tyr Ala  
 65 70 75 80  
 Leu Val

<210> 3565  
 <211> 580  
 <212> DNA  
 <213> Homo sapiens

<400> 3565  
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 120  
 aggacgagcg cgcacttcaa gtcccagaag ccccgcttc ctggagcccg cgccgtgccg  
 180  
 cgctacgccc gccgggagcc gggcagagcg gccaaagtgt cgcagcccaa gaaaagaaag  
 240  
 cttgagtcgg ggggcggcgc cgaaggaggg gagggaaactg aagaggaaga tggcgcggag  
 300

cgaggaggcg cccctggagcg accccggacg actaagcggg aacgggacca gctgtactac  
360  
gagtgtact cggacgtttc ggtccacgag gagatgatcg cggaccgcgt ccgcaccgat  
420  
gcctaccgct ggggtttccct tcggaactgg gcagcactgc gaggcaagac ggtactggac  
480  
gtgggcgcgg gcaccggcat tctgagcacc ttctgtgccc aggccggggc ccggcgcggtg  
540  
tacgcggtag aggccagcgc catctggcaa caggcccggg  
580

&lt;210&gt; 3566

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3566

Thr Arg Arg Gly Trp Glu Lys Gly Cys Gln Asp Thr Arg Arg Ala Ile  
1 5 10 15  
Gln Asn Ser Ser Arg Glu Gln Ala Gln Glu Thr Phe Arg Ala Ala Gly  
20 25 30  
Arg Ala Thr Pro Gln Glu Val Gly Arg Thr Ser Ala Phe Lys Ser  
35 40 45  
Gln Lys Pro Pro Phe Pro Gly Ala Arg Ala Val Pro Arg Tyr Ala Arg  
50 55 60  
Arg Glu Pro Gly Arg Ala Ala Lys Met Ser Gln Pro Lys Lys Arg Lys  
65 70 75 80  
Leu Glu Ser Gly Gly Gly Ala Glu Gly Gly Glu Gly Thr Glu Glu Glu  
85 90 95  
Asp Gly Ala Glu Arg Glu Ala Ala Leu Glu Arg Pro Arg Thr Thr Lys  
100 105 110  
Arg Glu Arg Asp Gln Leu Tyr Tyr Glu Cys Tyr Ser Asp Val Ser Val  
115 120 125  
His Glu Glu Met Ile Ala Asp Arg Val Arg Thr Asp Ala Tyr Arg Trp  
130 135 140  
Val Ser Leu Arg Asn Trp Ala Ala Leu Arg Gly Lys Thr Val Leu Asp  
145 150 155 160  
Val Gly Ala Gly Thr Gly Ile Leu Ser Ile Phe Cys Ala Gln Ala Gly  
165 170 175  
Ala Arg Arg Val Tyr Ala Val Glu Ala Ser Ala Ile Trp Gln Gln Ala  
180 185 190  
Arg

&lt;210&gt; 3567

&lt;211&gt; 2811

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3567

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60  
ccttgacagaa gagccagaag gaagctgaac tgaccctga actggagaaa cagaaggaaa  
120

ataagcaggt ggaagagatc ctccgtctgg agaaagaaat cgaggacctg cagcgcatga  
180  
aggagcagca ggagctgtcg ctgaccgagg ctccccctgca gaagctgcag gagcgccggg  
240  
accaggagct ccgaggctcg gaggaggaga tttttgcacc tgaaaaaggc agccatagtt  
300  
tcccagaagc aactcagagg tcagattgct cggagagttt acagacaatt gctggcagag  
360  
aaaaggggagc aagaagaaaa gaagaaacag gaagagggaag aaaagaagaa acgggaggaa  
420  
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480  
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720  
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780  
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840  
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960  
cactcagacc agcgaacaag tggcatccgg accagcgatg actcttcaga ggaggaccca  
1020  
tacctgaacg acacggtggt gccaccagc cccagtgagg acagcacggt gctgctcgcc  
1080  
ccatcagtgc aggaactccg gagcctacac aactcctcca gcggcgagtc cactactgc  
1140  
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1680  
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1740

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 1920  
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 1980  
 atcatcacgg ccaaccgggt gctgcaactg aacgcccaga cgccggagga gatgcaccac  
 2040  
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 2100  
 gtgagagatg ggttgcacaa agaggtgaag aacagtccaa agatgtcttc actgaaactg  
 2160  
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 2220  
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 2280  
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 2340  
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 2400  
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 2460  
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 2580  
 aacttgctca aagacaaagg ctataccacc cttcaggatg aggccatcaa gatattcaat  
 2640  
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 2700  
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 2760  
 aacaaagtgc cccaccccg cagtgtgggc aacctgtaca gctggcagat c  
 2811

&lt;210&gt; 3568

&lt;211&gt; 869

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3568

Pro Arg Leu Pro Cys Arg Ser Cys Arg Ser Gly Gly Thr Arg Ser Ser  
 1 5 10 15  
 Ala Gly Trp Arg Arg Phe Leu His Leu Lys Lys Ala Ala Ile Val  
 20 25 30  
 Phe Gln Lys Gln Leu Arg Gly Gln Ile Ala Arg Arg Val Tyr Arg Gln  
 35 40 45  
 Leu Leu Ala Glu Lys Arg Glu Gln Glu Glu Lys Lys Lys Gln Glu Glu  
 50 55 60  
 Glu Glu Lys Lys Lys Arg Glu Glu Glu Glu Arg Glu Arg Glu  
 65 70 75 80  
 Arg Arg Glu Ala Glu Leu Arg Ala Gln Gln Glu Glu Glu Thr Arg Lys



				85					90					95		
Gln	Gln	Glu	Leu	Glu	Ala	Leu	Gln	Lys	Ser	Gln	Lys	Glu	Ala	Glu	Leu	
			100					105					110			
Thr	Arg	Glu	Leu	Glu	Lys	Gln	Lys	Glu	Asn	Lys	Gln	Val	Glu	Glu	Ile	
		115					120					125				
Leu	Arg	Leu	Glu	Lys	Glu	Ile	Glu	Asp	Leu	Gln	Arg	Met	Lys	Glu	Gln	
		130				135					140					
Gln	Glu	Leu	Ser	Leu	Thr	Glu	Ala	Ser	Leu	Gln	Lys	Leu	Gln	Glu	Arg	
145					150					155					160	
Arg	Asp	Gln	Glu	Leu	Arg	Arg	Leu	Glu	Glu	Glu	Ala	Cys	Arg	Ala	Ala	
			165					170					175			
Gln	Glu	Phe	Leu	Glu	Ser	Leu	Asn	Phe	Asp	Glu	Ile	Asp	Glu	Cys	Val	
		180						185					190			
Arg	Asn	Ile	Glu	Arg	Ser	Leu	Ser	Gly	Gly	Ser	Glu	Phe	Ser	Ser	Glu	
		195				200						205				
Leu	Ala	Glu	Ser	Ala	Cys	Glu	Glu	Lys	Pro	Asn	Phe	Asn	Phe	Ser	Gln	
		210				215					220					
Pro	Tyr	Pro	Glu	Glu	Glu	Val	Asp	Glu	Gly	Phe	Glu	Ala	Asp	Asp	Asp	
225					230					235					240	
Ala	Phe	Lys	Asp	Ser	Pro	Asn	Pro	Ser	Glu	His	Gly	His	Ser	Asp	Gln	
			245						250					255		
Arg	Thr	Ser	Gly	Ile	Arg	Thr	Ser	Asp	Asp	Ser	Ser	Glu	Glu	Asp	Pro	
		260						265					270			
Tyr	Met	Asn	Asp	Thr	Val	Val	Pro	Thr	Ser	Pro	Ser	Ala	Asp	Ser	Thr	
		275				280						285				
Val	Leu	Leu	Ala	Pro	Ser	Val	Gln	Asp	Ser	Gly	Ser	Leu	His	Asn	Ser	
		290				295					300					
Ser	Ser	Gly	Glu	Ser	Thr	Tyr	Cys	Met	Pro	Gln	Asn	Ala	Gly	Asp	Leu	
305					310					315					320	
Pro	Ser	Pro	Asp	Gly	Asp	Tyr	Asp	Tyr	Asp	Gln	Asp	Asp	Tyr	Glu	Asp	
			325						330					335		
Gly	Ala	Ile	Thr	Ser	Gly	Ser	Ser	Val	Thr	Phe	Ser	Asn	Ser	Tyr	Gly	
			340					345					350			
Ser	Gln	Trp	Ser	Pro	Asp	Tyr	Arg	Cys	Ser	Val	Gly	Thr	Tyr	Asn	Ser	
		355				360						365				
Ser	Gly	Ala	Tyr	Arg	Phe	Ser	Ser	Glu	Gly	Ala	Gln	Ser	Ser	Phe	Glu	
		370				375					380					
Asp	Ser	Glu	Glu	Asp	Phe	Asp	Ser	Arg	Phe	Asp	Thr	Asp	Asp	Glu	Leu	
385					390					395					400	
Ser	Tyr	Arg	Arg	Asp	Ser	Val	Tyr	Ser	Cys	Val	Thr	Leu	Pro	Tyr	Phe	
			405						410					415		
His	Ser	Phe	Leu	Tyr	Met	Lys	Gly	Leu	Met	Asn	Ser	Trp	Lys	Arg		
			420					425	</							

515 520 525  
 Ile Ala Glu Ser Pro Glu Asp Ala Ser Gln Trp Phe Ser Val Leu Ser  
 530 535 540  
 Gln Val His Ala Ser Thr Asp Gln Glu Ile Gln Glu Met His Asp Glu  
 545 550 555 560  
 Gln Ala Asn Pro Gln Asn Ala Val Gly Thr Leu Asp Val Gly Leu Ile  
 565 570 575  
 Asp Ser Val Cys Ala Ser Asp Ser Pro Asp Arg Pro Asn Ser Phe Val  
 580 585 590  
 Ile Ile Thr Ala Asn Arg Val Leu His Cys Asn Ala Asp Thr Pro Glu  
 595 600 605  
 Glu Met His His Trp Ile Thr Leu Leu Gln Arg Ser Lys Gly Asp Thr  
 610 615 620  
 Arg Val Glu Gly Gln Glu Phe Ile Val Arg Gly Trp Leu His Lys Glu  
 625 630 635 640  
 Val Lys Asn Ser Pro Lys Met Ser Ser Leu Lys Leu Lys Lys Arg Trp  
 645 650 655  
 Phe Val Leu Thr His Asn Ser Leu Asp Tyr Tyr Lys Ser Ser Glu Lys  
 660 665 670  
 Asn Ala Leu Lys Leu Gly Thr Leu Val Leu Asn Ser Leu Cys Ser Val  
 675 680 685  
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<212> PRT

<213> Homo sapiens

<400> 3570

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Pro	Gly	Ser	Leu	Pro	Leu	Ser	Ile	Ala	Arg	Val	Gln	Thr	Pro	Pro
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Glu	Leu	Pro	Met	Leu	Thr	Tyr	Arg	Val	Asp	Ala	Asp	Lys	Gly	Phe
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Ser Leu Thr Leu Gln Met Asn Ser Ser Ser Pro Val Ser Val Val Leu
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Gln Ser Leu His Thr His Gln Asp Thr Gln Gly Thr Ser His Arg Trp
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Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His

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Ala Leu Leu Pro Gln Val Ser Thr Gln Val Ala Gln Ala Ala Leu Arg
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<210> 3576  
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 <212> PRT  
 <213> Homo sapiens

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 Ser Thr Thr Lys Gln Asp Lys Ile Ile Ser Phe Ile Phe Ala Leu Thr  
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 Ile Pro Lys Met Met Phe Leu Pro Asn Glu Cys Leu His Phe Ile Phe  
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 Gln Thr Cys Ser Leu Lys Pro Ile Ile Ala Pro Leu Arg Asn Ile Phe  
 65 70 75 80  
 Thr Ser Ser Ser Gly Met Ser Leu Ser Ala Gly Ser Ser Pro Leu His  
 85 90 95  
 Ser Pro Lys Ile Thr Pro His Thr Ser Pro Ala Pro Arg Arg Arg Ser

2736

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His	Thr	Pro	Asn	Pro	Ala	Ser	Tyr	Met	Val	Pro	Ser	Ser	Ala	Ser	Thr		
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Ser	Val	Asn	Asn	Pro	Val	Ser	Gln	Thr	Pro	Ser	Ser	Gly	Gln	Val	Ile		
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Gln	Lys	Glu	Thr	Val	Gly	Gly	Thr	Thr	Tyr	Phe	Tyr	Thr	Asp	Thr	Thr		
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Pro	Ala	Pro	Leu	Thr	Gly	Met	Val	Phe	Pro	Asn	Tyr	His	Ile	Tyr	Pro		
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 <212> PRT  
 <213> Homo sapiens

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 Val Asn Glu Ser Thr Val Cys Leu Met Gly His Glu Arg Arg Gln Thr  
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<210> 3579  
 <211> 755  
 <212> DNA  
 <213> Homo sapiens

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<210> 3580

<211> 121

<212> PRT

<213> Homo sapiens

<400> 3580

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<210> 3581

<211> 2132

<212> DNA

<213> Homo sapiens

<400> 3581

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 <212> PRT  
 <213> Homo sapiens

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 Ser Arg Pro Arg Pro Ser Thr Thr Ala Thr Ser Arg Cys Ser Ser Ala  
 65 70 75 80  
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 Thr Thr Ala Thr Ser Thr Arg Ala Trp Pro Ser Ala Trp Arg Ser Pro  
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 <213> Homo sapiens

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&lt;210&gt; 3584

&lt;211&gt; 356

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3584

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Ala Glu Ala Val Ala Glu Gly Ala Ser Gly Arg His Gly Gln Gly Arg
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Ser Leu Glu Ala Glu Asp Lys Met Thr His Arg Ile Leu Arg Ala Ala
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Gln Glu Gly Asp Leu Pro Glu Leu Arg Arg Leu Leu Glu Pro His Glu
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Ala Gly Gly Ala Gly Gly Asn Ile Asn Ala Arg Asp Ala Phe Trp Trp
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Thr Pro Leu Met Cys Ala Ala Arg Ala Gly Gln Gly Ala Ala Val Ser
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Tyr Leu Leu Gly Arg Gly Ala Ala Trp Val Gly Val Cys Glu Leu Ser
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Gly Arg Asp Ala Ala Gln Leu Ala Glu Glu Ala Gly Phe Pro Glu Val
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Glu Arg Pro Pro Arg Val Ala Thr Leu Ser Trp Arg Glu Glu Arg Arg
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&lt;210&gt; 3586

&lt;211&gt; 663

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3586

Met	Tyr	Pro	Pro	Pro	Pro	Pro	Pro	His	Arg	Asp	Phe	Ile	Ser	Val
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Thr	Leu	Ser	Phe	Gly	Glu	Ser	Tyr	Asp	Asn	Ser	Lys	Ser	Trp	Arg
			20					25					30	
Arg	Ser	Cys	Trp	Arg	Lys	Trp	Lys	Gln	Leu	Ser	Arg	Leu	Gln	Arg
		35				40					45			
Met	Ile	Leu	Phe	Leu	Leu	Ala	Phe	Leu	Leu	Phe	Cys	Gly	Leu	Leu
		50				55				60				
Tyr	Ile	Asn	Leu	Ala	Asp	His	Trp	Lys	Ala	Leu	Ala	Phe	Arg	Leu
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Glu	Glu	Gln	Lys	Met	Arg	Pro	Glu	Ile	Ala	Gly	Leu	Lys	Pro	Ala
														Asn

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Pro Pro Val Leu Pro Ala Pro Gln Lys Ala Asp Thr Asp Pro Glu Asn
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Pro Pro His Leu Gln Ile Arg Pro Pro Ser Gln Asp Leu Lys Asp Gly
      130              135              140
Thr Gln Glu Glu Ala Thr Lys Arg Gln Glu Ala Pro Val Asp Pro Arg
      145              150              155              160
Pro Glu Gly Asp Pro Gln Arg Thr Val Ile Ser Trp Arg Gly Ala Val
      165              170              175
Ile Glu Pro Glu Gln Gly Thr Glu Leu Pro Ser Arg Arg Ala Glu Val
      180              185              190
Pro Thr Lys Pro Pro Leu Pro Pro Ala Arg Thr Gln Gly Thr Pro Val
      195              200              205
His Leu Asn Tyr Arg Gln Lys Gly Val Ile Asp Val Phe Leu His Ala
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Trp Lys Gly Tyr Arg Lys Phe Ala Trp Gly His Asp Glu Leu Lys Pro
      225              230              235              240
Val Ser Arg Ser Phe Ser Glu Trp Phe Gly Leu Gly Leu Thr Leu Ile
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      260              265              270
Glu Ala Arg Lys Trp Val Ser Lys Lys Leu His Phe Glu Lys Asp Val
      275              280              285
Asp Val Asn Leu Phe Glu Ser Thr Ile Arg Ile Leu Gly Gly Leu Leu
      290              295              300
Ser Ala Tyr His Leu Ser Gly Asp Ser Leu Phe Leu Arg Lys Ala Glu
      305              310              315              320
Asp Phe Gly Asn Arg Leu Met Pro Ala Phe Arg Thr Pro Ser Lys Ile
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Pro Tyr Ser Asp Val Asn Ile Gly Thr Gly Val Ala His Pro Pro Arg
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Glu Asp Tyr Val Glu Ala Ile Glu Gly Val Arg Thr His Leu Leu Arg
      450              455              460
His Ser Glu Pro Ser Lys Leu Thr Phe Val Gly Glu Leu Ala His Gly
      465              470              475              480
Arg Phe Ser Ala Lys Met Asp His Leu Val Cys Phe Leu Pro Gly Thr
      485              490              495
Leu Ala Leu Gly Val Tyr His Gly Leu Pro Ala Ser His Met Glu Leu
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Gly	Arg	Arg	Asp	Val	Glu	Val	Lys	Pro	Ala	Asp	Arg	His	Asn	Leu	Leu
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Arg	Pro	Glu	Thr	Val	Glu	Ser	Leu	Phe	Tyr	Leu	Tyr	Arg	Val	Thr	Gly
			565						570					575	
Asp	Arg	Lys	Tyr	Gln	Asp	Trp	Gly	Trp	Glu	Ile	Leu	Gln	Ser	Phe	Ser
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Arg	Phe	Thr	Arg	Val	Pro	Ser	Gly	Gly	Tyr	Ser	Ser	Ile	Asn	Asn	Val
		595					600					605			
Gln	Asp	Pro	Gln	Lys	Pro	Glu	Pro	Arg	Asp	Lys	Met	Glu	Ser	Phe	Phe
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Leu	Gly	Glu	Thr	Leu	Lys	Tyr	Leu	Phe	Leu	Leu	Phe	Ser	Asp	Asp	Pro
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Leu	Pro	Ile	Trp	Thr	Pro	Ala									
			660												

&lt;210&gt; 3587

&lt;211&gt; 3148

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3587

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<210> 3588

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3588

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 20 25 30  
 Glu Asp Val Gln Glu Glu Thr Gln Leu Asp Leu Ser Gly Asp Ser Val  
 35 40 45  
 Lys Thr Ile Ala Lys Leu Trp Asp Ser Lys Met Phe Ala Glu Ile Met  
 50 55 60  
 Met Lys Ile Glu Glu Tyr Ile Ser Lys Gln Ala Lys Ala Ser Glu Val  
 65 70 75 80  
 Met Gly Pro Val Glu Ala Ala Pro Glu Tyr Arg Val Ile Val Asp Ala  
 85 90 95  
 Asn Asn Leu Thr Val Glu Ile Glu Asn Glu Leu Asn Ile Ile His Lys  
 100 105 110  
 Phe Ile Arg Asp Lys Tyr Ser Lys Arg Phe Pro Glu Leu Glu Ser Leu  
 115 120 125  
 Val Pro Asn Ala Leu Asp Tyr Ile Arg Thr Val Lys Glu Leu Gly Asn  
 130 135 140  
 Ser Leu Asp Lys Cys Lys Asn Asn Glu Asn Leu Gln Gln Ile Leu Thr  
 145 150 155 160  
 Asn Ala Thr Ile Met Val Val Ser Val Thr Ala Ser Thr Thr Gln Gly  
 165 170 175  
 Gln Gln Leu Ser Glu Glu Glu Leu Glu Arg Leu Glu Glu Ala Cys Asp



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Met Ala Leu Glu Leu Asn Ala Ser Lys His Arg Ile Tyr Glu Tyr Val
      195      200      205
Glu Ser Arg Met Ser Phe Ile Ala Pro Asn Leu Ser Ile Ile Ile Gly
      210      215      220
Ala Ser Thr Ala Ala Lys Ile Met Gly Val Ala Gly Gly Leu Thr Asn
      225      230      235      240
Leu Ser Lys Met Pro Ala Cys Asn Ile Met Leu Leu Gly Ala Gln Arg
      245      250      255
Lys Thr Leu Ser Gly Phe Ser Ser Thr Ser Val Leu Pro His Thr Gly
      260      265      270
Tyr Ile Tyr His Ser Asp Ile Val Gln Ser Leu Pro Pro Asp Leu Arg
      275      280      285
Arg Lys Ala Ala Arg Leu Val Ala Ala Lys Cys Thr Leu Ala Ala Arg
      290      295      300
Val Asp Ser Phe His Glu Ser Thr Glu Gly Lys Val Gly Tyr Glu Leu
      305      310      315      320
Lys Asp Glu Ile Glu Arg Lys Phe Asp Lys Trp Gln Glu Pro Pro Pro
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Val Lys Gln Val Lys Pro Leu Pro Ala Pro Leu Asp Gly Gln Arg Lys
      340      345      350
Lys Arg Gly Gly Arg Arg Tyr Arg Lys Met Lys Glu Arg Leu Gly Leu
      355      360      365
Thr Glu Ile Arg Lys Gln Ala Asn Arg Met Ser Phe Gly Glu Ile Glu
      370      375      380
Glu Asp Ala Tyr Gln Glu Asp Leu Gly Phe Ser Leu Gly His Leu Gly
      385      390      395      400
Lys Ser Gly Ser Gly Arg Val Arg Gln Thr Gln Val Asn Glu Ala Thr
      405      410      415
Lys Ala Arg Ile Ser Lys Thr Leu Gln Arg Thr Leu Gln Lys Gln Ser
      420      425      430
Val Val Tyr Gly Gly Lys Ser Thr Ile Arg Asp Arg Ser Ser Gly Thr
      435      440      445
Ala Ser Ser Val Ala Phe Thr Pro Leu Gln Gly Leu Glu Ile Val Asn
      450      455      460
Pro Gln Ala Ala Glu Lys Lys Val Ala Glu Ala Asn Gln Lys Tyr Phe
      465      470      475      480
Ser Ser Met Ala Glu Phe Leu Lys Val Lys Gly Glu Lys Ser Gly Leu
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Met Ser Thr

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<210> 3589  
 <211> 675  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180

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<210> 3590  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

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 Asp Pro Met Ser Pro Phe His Leu Ser Ser Val Ile Leu Cys Arg Pro  
 35 40 45  
 Ser Ala Trp Pro Cys Leu Arg Ser Ser Ser Pro Pro Ala Ala Gln Gly  
 50 55 60  
 Ser Phe Val Ser Ala Gln Glu Gly Pro Tyr Asn Pro Ser Trp Leu Trp  
 65 70 75 80  
 Pro Gly Pro Cys Phe Val Ser Glu Leu Gly Gly Pro Ile Pro Lys His  
 85 90 95  
 Trp Leu Gly Asn Ser Tyr Pro Ile Cys Cys Leu Gly Ser Ala Trp Phe  
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 Phe Thr His Ile Ser  
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<210> 3591  
 <211> 669  
 <212> DNA  
 <213> Homo sapiens

<400> 3591  
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cacattgatt ctgggaaaac tacattaaca gaacgagtc tttactacac tggcagaatt  
 240  
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 300  
 ctgagagagac aaagaggaat cactattcag tcagcagcca cttacaccat gtggaaagat  
 360  
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&lt;210&gt; 3592

&lt;211&gt; 223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3592

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 Lys Gln Val Asn Trp Lys Ala Cys Arg Trp Ser Ser Ser Gly Val Ile  
 35 40 45  
 Pro Asn Glu Lys Ile Arg Asn Ile Gly Ile Ser Ala His Ile Asp Ser  
 50 55 60  
 Gly Lys Thr Thr Leu Thr Glu Arg Val Leu Tyr Tyr Thr Gly Arg Ile  
 65 70 75 80  
 Ala Lys Met His Glu Val Lys Gly Lys Asp Gly Val Gly Ala Val Met  
 85 90 95  
 Asp Ser Met Glu Leu Glu Arg Gln Arg Gly Ile Thr Ile Gln Ser Ala  
 100 105 110  
 Ala Thr Tyr Thr Met Trp Lys Asp Val Asn Ile Asn Ile Ile Asp Thr  
 115 120 125  
 Pro Gly His Val Asp Phe Thr Ile Glu Val Glu Arg Ala Leu Arg Val  
 130 135 140  
 Leu Asp Gly Ala Val Leu Val Leu Cys Ala Val Gly Gly Val Gln Cys  
 145 150 155 160  
 Gln Thr Met Thr Val Asn Arg Gln Met Lys Arg Tyr Asn Val Pro Phe  
 165 170 175  
 Leu Thr Phe Ile Asn Lys Leu Asp Arg Met Gly Ser Asn Pro Ala Arg  
 180 185 190  
 Ala Leu Gln Gln Met Arg Ser Lys Leu Asn His Asn Ala Ala Phe Met  
 195 200 205  
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 210 215 220

<210> 3593  
 <211> 1005  
 <212> DNA  
 <213> Homo sapiens

<400> 3593  
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<210> 3594  
 <211> 282  
 <212> PRT  
 <213> Homo sapiens

<400> 3594  
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 35 40 45  
 Arg Leu Leu Gly Ala Leu Cys Leu Gln Arg Pro Pro Val Val Ser Lys

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Glu Ile Glu Arg Ser Leu Tyr Ser Asp His Glu Leu Arg Ala Leu Asp
      85      90      95
Glu Asn Gln Arg Leu Ala Lys Lys Lys Ala Asp Leu His Asp Glu Glu
      100      105      110
Asp Glu Gln Asp Ile Leu Leu Ala Gln Asp Leu Glu Asp Met Trp Glu
      115      120      125
Gln Lys Phe Leu Gln Phe Lys Leu Gly Ala Arg Ile Thr Glu Ala Asp
      130      135      140
Glu Lys Asn Asp Arg Thr Ser Leu Asn Arg Lys Leu Asp Arg Asn Leu
      145      150      155      160
Val Leu Leu Val Arg Glu Lys Phe Gly Asp Gln Asp Val Trp Ile Leu
      165      170      175
Pro Gln Ala Glu Trp Gln Pro Gly Glu Thr Leu Arg Gly Thr Ala Glu
      180      185      190
Arg Thr Leu Ala Thr Leu Ser Glu Asn Asn Met Glu Ala Lys Phe Leu
      195      200      205
Gly Asn Ala Pro Cys Gly His Tyr Thr Phe Lys Phe Pro Gln Ala Met
      210      215      220
Arg Thr Glu Ser Asn Leu Gly Ala Lys Val Phe Phe Phe Lys Ala Leu
      225      230      235      240
Leu Leu Thr Gly Asp Phe Ser Gln Ala Gly Asn Lys Gly His His Val
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<210> 3595  
 <211> 1903  
 <212> DNA  
 <213> Homo sapiens

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1903

&lt;210&gt; 3596

&lt;211&gt; 496

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3596

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Val Glu Ser Tyr Ile Gly Phe Ile Glu Ser Tyr Arg Asp Pro Phe Gly
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Ser Arg Gly Glu Phe Glu Gly Phe Val Ala Val Val Asn Lys Ala Met
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Ser Ala Lys Phe Glu Arg Leu Val Ala Ser Ala Glu Gln Leu Leu Lys
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Glu Leu Pro Trp Pro Pro Thr Phe Glu Lys Asp Lys Phe Leu Thr Pro
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Asp Phe Thr Ser Leu Asp Val Leu Thr Phe Ala Gly Ser Gly Ile Pro
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Ala Gly Ile Asn Ile Pro Asn Tyr Asp Asp Leu Arg Gln Thr Glu Gly
145          150          155          160
Phe Lys Asn Val Ser Leu Gly Asn Val Leu Ala Val Ala Tyr Ala Thr
165          170          175
Gln Arg Glu Lys Leu Thr Phe Leu Glu Glu Asp Asp Lys Asp Leu Tyr
180          185          190
Ile Leu Trp Lys Gly Pro Ser Phe Asp Val Gln Val Gly Leu His Glu
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Gln Ile Gln Ser Trp Tyr Arg Ser Gly Glu Thr Trp Asp Ser Lys Phe
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Ser Thr Ile Ala Ser Ser Tyr Glu Glu Cys Arg Ala Glu Ser Val Gly
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Leu Tyr Leu Cys Leu His Pro Gln Val Leu Glu Ile Phe Gly Phe Glu
275          280          285
Gly Ala Asp Ala Glu Asp Val Ile Tyr Val Asn Trp Leu Asn Met Val
290          295          300
Arg Ala Gly Leu Leu Ala Leu Glu Phe Tyr Thr Pro Glu Ala Phe Asn
305          310          315          320
Trp Arg Gln Ala His Met Gln Ala Arg Phe Val Ile Leu Arg Val Leu
325          330          335
Leu Glu Ala Gly Glu Gly Leu Val Thr Ile Thr Pro Thr Thr Gly Ser
340          345          350
Asp Gly Arg Pro Asp Ala Arg Val Arg Leu Asp Arg Ser Lys Ile Arg
355          360          365
Ser Val Gly Lys Pro Ala Leu Glu Arg Phe Leu Arg Arg Leu Gln Val
370          375          380
Leu Lys Ser Thr Gly Asp Val Ala Gly Gly Arg Ala Leu Tyr Glu Gly
385          390          395          400
Tyr Ala Thr Val Thr Asp Ala Pro Pro Glu Cys Phe Leu Thr Leu Arg
405          410          415
Asp Thr Val Leu Leu Arg Lys Glu Ser Arg Lys Leu Ile Val Gln Pro
420          425          430
Asn Thr Arg Leu Glu Gly Asn Gly Ser Asp Val Gln Leu Leu Glu Tyr

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435	440	445
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485	490	495

<210> 3597  
 <211> 1090  
 <212> DNA  
 <213> Homo sapiens

<400> 3597  
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<210> 3598



<211> 159  
 <212> PRT  
 <213> Homo sapiens

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 Pro Lys Thr Ala Leu Pro Phe Asn Arg Phe Leu Pro Asn Lys Ser Arg  
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 Gln Pro Ser Tyr Val Pro Ala Pro Leu Arg Lys Lys Pro Asp Lys  
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 His Glu Asp Asn Arg Arg Ser Trp Ala Ser Pro Val Tyr Thr Glu Ala  
 85 90 95  
 Asp Gly Thr Phe Ser Arg Ser Lys Ser Met Ser Asp Val Ser Ala Glu  
 100 105 110  
 Asp Val Gln Asn Leu Arg Gln Leu Arg Tyr Glu Glu Met Gln Lys Ile  
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<210> 3599  
 <211> 691  
 <212> DNA  
 <213> Homo sapiens

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<210> 3600  
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<400> 3600  
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Met Val Glu Val Arg Ser Trp Ser Gly Ser Leu Val Gly Trp Leu Ala  
35 40 45  
Pro Arg Pro Leu Ser Val Pro Ile Glu His Leu Leu Gly Ala Lys Asn  
50 55 60  
Cys Cys Arg His Gly Gly Gln Trp Val Arg Arg Ala Val Pro Ala Val  
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<210> 3601  
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<212> DNA  
<213> Homo sapiens

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 2963

<210> 3602

<211> 299

<212> PRT

<213> Homo sapiens

<400> 3602

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 35 40 45  
 Gly Gln Gln Asn Ser Ala Ala Asp Leu Ser Met Leu Val Leu Glu Ser  
 50 55 60  
 Leu Glu Lys Ala Glu Val Glu Val Ala Asp Glu Leu Leu Glu Asn Leu  
 65 70 75 80  
 Ala Lys Val Phe Ser Leu Met Asp Pro Asn Ser Pro Glu Arg Val Thr  
 85 90 95  
 Phe Val Ser Arg Ala Leu Lys Trp Ser Ser Gly Gly Ser Gly Lys Leu  
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 Gly His Pro Arg Leu His Gln Leu Leu Ala Leu Thr Leu Trp Lys Glu  
 115 120 125  
 Gln Asn Tyr Cys Glu Ser Arg Tyr His Phe Leu His Ser Ala Asp Gly  
 130 135 140  
 Glu Gly Cys Ala Asn Met Leu Val Glu Tyr Ser Thr Ser Arg Gly Phe  
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 Arg Ser Glu Val Asp Met Phe Val Ala Gln Ala Val Leu Gln Phe Leu  
 165 170 175  
 Cys Leu Lys Asn Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr Thr  
 180 185 190  
 Gln Lys His Pro Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro Leu

195	200	205
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	245	250
Gly Val Pro Pro Lys Gln Thr Ser Ser Tyr Gly Gly Leu Leu Gly Asn		255
	260	265
Leu Leu Thr Ser Leu Met Gly Ser Ser Glu Gln Glu Asp Gly Glu Glu		270
	275	280
Ser Pro Ser Asp Gly Ser Pro Ile Glu Leu Asp		285
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&lt;210&gt; 3603

&lt;211&gt; 1082

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3603

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<210> 3604  
<211> 146  
<212> PRT  
<213> Homo sapiens

<400> 3604  
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20 25 30  
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35 40 45  
Ala Gly Val Ser Pro Arg Gly Val Lys Arg Gln Arg Ser Ser Ser  
50 55 60  
Gly Gly Ser Gln Glu Lys Arg Gly Arg Pro Ser Gln Glu Pro Pro Leu  
65 70 75 80  
Ala Pro Pro His Arg Arg Arg Arg Ser Arg Gln His Pro Gly Pro Leu  
85 90 95  
Pro Pro Thr Asn Ala Ala Pro Thr Val Pro Gly Pro Val Glu Pro Leu  
100 105 110  
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115 120 125  
Val Ala Ala Pro Leu Pro Ala Pro Ser Thr Arg Pro Ser Ser Pro Ser  
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Arg Leu  
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<210> 3605  
<211> 2004  
<212> DNA  
<213> Homo sapiens

<400> 3605  
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&lt;210&gt; 3606

<211> 324  
 <212> PRT  
 <213> Homo sapiens

<400> 3606

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Lys Gly Asp Tyr Tyr Glu Ala His Gln Met Tyr Arg Thr Leu Phe Phe
 35           40           45
Arg Tyr Met Ser Gln Ser Lys His Thr Glu Ala Arg Glu Leu Met Tyr
 50           55           60
Ser Gly Ala Leu Leu Phe Phe Ser His Gly Gln Gln Asn Ser Ala Ala
 65           70           75           80
Asp Leu Ser Met Leu Val Leu Glu Ser Leu Glu Lys Ala Glu Val Glu
 85           90           95
Val Ala Asp Glu Leu Leu Glu Asn Leu Ala Lys Val Phe Ser Leu Met
100           105           110
Asp Pro Asn Ser Pro Glu Arg Val Thr Phe Val Ser Arg Ala Leu Lys
115           120           125
Trp Ser Ser Gly Gly Ser Gly Lys Leu Gly His Pro Arg Leu His Gln
130           135           140
Leu Leu Ala Leu Thr Leu Trp Lys Glu Gln Asn Tyr Cys Glu Ser Arg
145           150           155           160
Tyr His Phe Leu His Ser Ala Asp Gly Glu Gly Cys Ala Asn Met Leu
165           170           175
Val Glu Tyr Ser Thr Ser Arg Gly Phe Arg Ser Glu Val Asp Met Phe
180           185           190
Val Ala Gln Ala Val Leu Gln Phe Leu Cys Leu Lys Asn Lys Ser Ser
195           200           205
Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro Ser Ile Glu
210           215           220
Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile Trp Phe Leu
225           230           235           240
Leu Leu Ala Val Asp Gly Gly Lys Leu Thr Val Phe Thr Val Leu Cys
245           250           255
Glu Gln Tyr Gln Pro Ser Leu Arg Arg Asp Pro Met Tyr Asn Glu Tyr
260           265           270
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<210> 3607  
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 <213> Homo sapiens

<400> 3607



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<210> 3608  
 <211> 436  
 <212> PRT  
 <213> Homo sapiens

<400> 3608  
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 Glu Val Lys Trp Ser Val Arg Met Thr Leu Cys Ala Gly Ile Cys Ser  
 35 40 45  
 Tyr Glu Gly Lys Gly Gly Met Cys Ser Ile Arg Leu Ser Glu Pro Leu  
 50 55 60  
 Leu Lys Leu Arg Pro Arg Lys Asp Leu Val Glu Thr Leu Leu His Glu  
 65 70 75 80  
 Met Ile His Ala Tyr Leu Phe Val Thr Asn Asn Asp Lys Asp Arg Glu  
 85 90 95  
 Gly His Gly Pro Glu Phe Cys Lys His Met His Arg Ile Asn Ser Leu  
 100 105 110  
 Thr Gly Ala Asn Ile Thr Val Tyr His Thr Phe His Asp Glu Val Asp  
 115 120 125  
 Glu Tyr Arg Arg His Trp Trp Arg Cys Asn Gly Pro Cys Gln His Arg  
 130 135 140  
 Pro Pro Tyr Tyr Gly Tyr Val Lys Arg Ala Thr Asn Arg Glu Pro Ser  
 145 150 155 160  
 Ala His Asp Tyr Trp Trp Ala Glu His Gln Lys Thr Cys Gly Gly Thr  
 165 170 175  
 Tyr Ile Lys Ile Lys Glu Pro Glu Asn Tyr Ser Lys Lys Gly Lys Gly  
 180 185 190  
 Lys Ala Lys Leu Gly Lys Glu Pro Val Leu Ala Ala Glu Asn Lys Asp  
 195 200 205  
 Lys Pro Asn Arg Gly Glu Ala Gln Leu Val Ile Pro Phe Ser Gly Lys  
 210 215 220  
 Gly Tyr Val Leu Gly Glu Thr Ser Asn Leu Pro Ser Pro Gly Lys Leu  
 225 230 235 240  
 Ile Thr Ser His Ala Ile Asn Lys Thr Gln Asp Leu Leu Asn Gln Asn  
 245 250 255  
 His Ser Ala Asn Ala Val Arg Pro Asn Ser Lys Ile Lys Val Lys Phe  
 260 265 270  
 Glu Gln Asn Gly Ser Ser Lys Asn Ser His Leu Val Ser Pro Ala Val  
 275 280 285  
 Ser Asn Ser His Gln Asn Val Leu Ser Asn Tyr Phe Pro Arg Val Ser  
 290 295 300  
 Phe Ala Asn Gln Lys Ala Phe Arg Gly Val Asn Gly Ser Pro Arg Ile  
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Val Thr Glu Ser Ala Ser Val Met Pro Ser Gln Asp Val Ser Gly Ser
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Glu Asp Thr Phe Pro Asn Lys Arg Pro Arg Leu Glu Asp Lys Thr Val
      370      375      380
Phe Asp Asn Phe Phe Ile Lys Lys Glu Gln Ile Lys Ser Ser Gly Asn
      385      390      395      400
Asp Pro Lys Tyr Ser Thr Thr Thr Ala Gln Asn Ser Ser Ser Ser Ser
      405      410      415
Ser Gln Ser Lys Met Val Asn Cys Pro Val Cys Gln Asn Glu Val Leu
      420      425      430
Gly Val Ser Asp
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&lt;210&gt; 3609

&lt;211&gt; 1286

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3609

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<210> 3610

<211> 268

<212> PRT

<213> Homo sapiens

<400> 3610

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 Glu Pro Gln Asp Leu Glu Ser Thr Asn Leu Leu Glu Ser Glu Ala Pro  
 35 40 45  
 Arg Asp Tyr Phe Leu Lys Phe Ala Tyr Ile Val Asp Leu Asp Ser Asp  
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 Thr Ala Asp Lys Phe Leu Gln Leu Xaa Trp Asn Gln Arg Cys Gln Glu  
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 85 90 95  
 His Cys Glu Gln Val Leu Gly Glu Gly Ala Leu Asp Arg Gly Thr Tyr  
 100 105 110  
 Tyr Trp Glu Val Glu Ile Ile Glu Gly Trp Val Ser Met Gly Val Met  
 115 120 125  
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 130 135 140  
 Arg Asn Ala His Ser Cys Cys Leu Gln Trp Asn Gly Arg Ser Phe Ser  
 145 150 155 160  
 Val Trp Phe His Gly Leu Glu Ala Pro Leu Pro His Pro Phe Ser Pro  
 165 170 175  
 Thr Val Gly Val Cys Leu Glu Tyr Ala Asp Arg Ala Leu Ala Phe Tyr  
 180 185 190  
 Ala Val Arg Asp Gly Lys Met Ser Leu Leu Arg Arg Leu Lys Ala Ser  
 195 200 205  
 Arg Pro Arg Arg Gly Gly Ile Pro Ala Ser Pro Ile Asp Pro Phe Gln  
 210 215 220  
 Ser Arg Leu Asp Ser His Phe Ala Gly Leu Phe Thr His Arg Leu Lys  
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<210> 3611

<211> 816

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3611

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&lt;210&gt; 3612

&lt;211&gt; 272

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3612

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 Lys Val Lys Pro Arg Lys Ile Phe Gln Trp Arg Gln Leu Glu Asn Leu  
 35 40 45  
 Tyr Phe Arg Glu Lys Lys Phe Ser Val Glu Val His Asp Pro Arg Arg  
 50 55 60  
 Ala Ser Val Thr Arg Arg Thr Phe Gly His Ser Gly Ile Ala Val His  
 65 70 75 80  
 Thr Trp Tyr Ala Cys Pro Ala Leu Ile Lys Ser Ile Trp Ala Met Ala  
 85 90 95  
 Ile Ser Gln His Gln Phe Tyr Leu Asp Arg Lys Gln Ser Lys Ser Lys  
 100 105 110  
 Ile His Ala Ala Arg Ser Leu Ser Glu Ile Ala Ile Asp Leu Thr Glu

115	120	125
Thr Gly Thr Leu Lys Thr Ser Lys Leu Ala Asn Met Gly Ser Lys Gly		
130	135	140
Lys Ile Ile Ser Gly Ser Ser Gly Ser Leu Leu Ser Ser Gly Ser Gln		
145	150	155
Glu Ser Asp Ser Ser Gln Ser Ala Lys Lys Asp Met Leu Ala Ala Leu		
165	170	175
Lys Ser Arg Gln Glu Ala Leu Glu Glu Thr Leu Arg Gln Arg Leu Glu		
180	185	190
Glu Leu Lys Lys Leu Cys Leu Arg Glu Ala Glu Leu Thr Gly Lys Leu		
195	200	205
Pro Val Glu Tyr Pro Leu Asp Pro Gly Glu Glu Pro Pro Ile Val Arg		
210	215	220
Arg Arg Ile Gly Thr Ala Phe Lys Leu Asp Glu Gln Lys Ile Leu Pro		
225	230	235
Lys Gly Glu Glu Ala Glu Leu Glu Arg Leu Glu Arg Glu Phe Ala Ile		
245	250	255
Gln Ser Gln Ile Thr Glu Ala Ala Arg Arg Leu Ala Ser Asp Pro Asn		
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 <211> 659  
 <212> DNA  
 <213> Homo sapiens

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<210> 3614  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 3614  
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 Pro Thr Arg Cys Gly Cys Asp Ala Ser Gln Gly Pro Gln Gly His Cys  
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 Pro Arg Ala His Arg Pro Pro Leu Thr Ala Thr Gly Ala Trp Ile Arg  
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 Ser Tyr Ile Val Gln Ser Phe Arg Pro Leu Pro Trp Ser Thr Arg Thr  
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<210> 3615  
 <211> 1388  
 <212> DNA  
 <213> Homo sapiens

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<210> 3616

<211> 290

<212> PRT

<213> Homo sapiens

<400> 3616

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 35 40 45  
 Asp Asp Glu Asp Tyr Glu Arg Arg Ser Glu Cys Val Ser Glu Met  
 50 55 60  
 Leu Asp Leu Glu Lys Gln Phe Ser Glu Leu Lys Glu Lys Leu Phe Arg  
 65 70 75 80  
 Glu Arg Leu Ser Gln Leu Arg Leu Arg Leu Glu Glu Val Gly Ala Glu  
 85 90 95  
 Arg Ala Pro Glu Tyr Thr Glu Pro Leu Gly Gly Leu Gln Arg Ser Leu  
 100 105 110  
 Lys Ile Arg Ile Gln Val Ala Gly Ile Tyr Lys Gly Phe Cys Leu Asp  
 115 120 125  
 Val Ile Arg Asn Lys Tyr Glu Cys Glu Leu Gln Gly Ala Lys Gln His  
 130 135 140  
 Leu Glu Ser Glu Lys Leu Leu Leu Tyr Asp Thr Leu Gln Gly Glu Leu  
 145 150 155 160  
 Gln Glu Arg Ile Gln Arg Leu Glu Glu Asp Arg Gln Ser Leu Asp Leu  
 165 170 175  
 Ser Ser Glu Trp Trp Asp Asp Lys Leu His Ala Arg Gly Ser Ser Arg  
 180 185 190  
 Ser Trp Asp Ser Leu Pro Pro Ser Lys Arg Lys Lys Ala Pro Leu Val  
 195 200 205  
 Ser Gly Pro Tyr Ile Val Tyr Met Leu Gln Glu Ile Gly Ile Leu Glu  
 210 215 220  
 Asp Trp Thr Ala Ile Lys Lys Ala Arg Ala Ala Val Ser Pro Gln Lys



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225          230          235          240
Arg Lys Ser Asp Asp Arg Arg Thr His Arg Pro Leu Arg Val Cys Pro
          245          250          255
Ala Arg Leu Leu Trp Cys Cys Trp Ala Leu Pro Leu His Leu Ala Leu
          260          265          270
Ala Trp Thr Pro Pro Leu Pro Ser Ser Arg Pro Ala Gln Leu Trp Pro
          275          280          285
Trp Ser
          290

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&lt;210&gt; 3617

&lt;211&gt; 804

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3617

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&lt;210&gt; 3618

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3618

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1          5          10          15
Ala Glu Glu Ile Cys Glu Ser Ser Ser Lys Met Ile Thr Phe Ile Asp

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 Leu Ala Gly His His Lys Tyr Leu His Thr Thr Ile Phe Gly Leu Thr  
 35 40 45  
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 50 55 60  
 Ile Ala Gly Thr Thr Arg Glu His Leu Gly Leu Ala Leu Ala Leu Lys  
 65 70 75 80  
 Val Pro Phe Phe Ile Val Val Ser Lys Ile Asp Leu Cys Ala Lys Thr  
 85 90 95  
 Thr Val Glu Arg Thr Val Arg Gln Leu Glu Arg Val Leu Lys Gln Pro  
 100 105 110  
 Gly Cys His Lys Val Pro Met Leu Val Thr Ser Glu Asp Asp Ala Val  
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 Thr Leu Ser Ser  
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<210> 3619  
 <211> 948  
 <212> DNA  
 <213> Homo sapiens

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<210> 3620  
<211> 159  
<212> PRT  
<213> Homo sapiens

<400> 3620  
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35 40 45  
Pro Gly Ala Ser Ser Gln Pro Cys Ser Thr Tyr Pro Pro Trp Arg Thr  
50 55 60  
Thr Thr Leu Ser Thr Ser Thr Ser Trp Ser Cys Leu Leu Leu Pro Cys  
65 70 75 80  
Ala Ser Cys Pro Ser Arg Cys Ser Cys Gln Thr Trp Pro Ser Ser Pro  
85 90 95  
Thr Ala Ser Thr Pro Thr Thr Ser Cys Thr Ser Phe Met Thr Thr Cys  
100 105 110  
Cys His Ser Ser Thr Pro Cys Gly Ser Phe Pro Ala Trp Pro Thr Arg  
115 120 125  
His Gly Ser Ser Ser Trp Arg Ala Gly Ala Arg Val His Thr Ser Thr  
130 135 140  
Ser Thr Ser Cys Ser Ala Pro Ser Ser Leu Ser Cys Gly His Ser  
145 150 155

<210> 3621  
<211> 2934  
<212> DNA  
<213> Homo sapiens

<400> 3621  
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180  
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240  
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300  
aacataataa gatccttgcc agcacattac agaataatgt ttgtgaacct tcttgagaat  
360  
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420  
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480  
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720  
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<210> 3622

<211> 228

<212> PRT

<213> Homo sapiens

<400> 3622

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 Glu Ser Gly Phe Asp Pro Asn Ile Arg Asp Ser Arg Gly Arg Thr Gly  
 35 40 45  
 Leu His Leu Ala Ala Arg Gly Asn Val Asp Ile Cys Gln Leu Leu  
 50 55 60  
 His Lys Phe Gly Ala Asp Leu Leu Ala Thr Asp Tyr Gln Gly Asn Thr  
 65 70 75 80  
 Ala Leu His Leu Cys Gly His Val Asp Thr Ile Gln Phe Leu Val Ser  
 85 90 95  
 Asn Gly Leu Lys Ile Asp Ile Cys Asn His Gln Gly Ala Thr Pro Leu  
 100 105 110  
 Val Leu Ala Lys Arg Arg Gly Val Asn Lys Asp Val Ile Arg Leu Leu  
 115 120 125  
 Glu Ser Leu Glu Glu Gln Glu Val Lys Gly Phe Asn Arg Gly Thr His  
 130 135 140  
 Ser Lys Leu Glu Thr Met Gln Thr Ala Glu Ser Glu Ser Ala Met Glu  
 145 150 155 160  
 Ser His Ser Leu Leu Asn Pro Asn Leu Gln Gln Gly Glu Gly Val Leu

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          165          170          175
Ser Ser Phe Arg Thr Thr Trp Gln Glu Phe Val Glu Asp Leu Gly Phe
          180          185          190
Trp Arg Val Leu Leu Leu Ile Phe Val Ile Ala Leu Leu Ser Leu Gly
          195          200          205
Ile Ala Tyr Tyr Val Ser Gly Val Leu Pro Phe Val Glu Asn Gln Pro
          210          215          220
Glu Leu Val His
225

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&lt;210&gt; 3623

&lt;211&gt; 586

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3623

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586

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&lt;210&gt; 3624

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3624

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Met Gly Leu Leu Gly Leu Tyr Asn Leu Gln Tyr Phe Ala Glu Arg Asp
1      5      10      15
Ala Thr Ala Ala Gln Gln Val Leu Ser Asp Ser Leu His Pro Lys Cys
20     25     30
Arg Asp Ile Thr Lys Glu Glu Ile Ser Lys Phe Ser Lys Ala Glu Trp
35     40     45
Glu Lys Lys Arg Met Asp Lys Ala Ile Gly Tyr Ser Phe Ala Ile Val
50     55     60
Gly Ile Asn Ile Thr Asp Leu Ala Tyr Asn Leu Leu Val Ser Gly Ala
65     70     75     80
Leu Lys Thr His Phe Tyr Asn Ile Ala Pro Glu Ala Pro Thr Leu Ser

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	85		90		95
His	Phe	Gln	Gln	Thr	Phe
	100		105		110
Trp	Ile	Glu	Glu	Asp	Pro
	115		120		125
Glu	Lys	Phe	Arg	Lys	Arg
	130		135		140
Ala	Leu	Cys	Pro	His	Phe
	145		150		155

&lt;210&gt; 3625

&lt;211&gt; 4799

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3625

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&lt;210&gt; 3626

&lt;211&gt; 551

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3626

Met Ser Thr Ser Ser Leu Arg Arg Gln Met Lys Asn Ile Val His Asn  
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 Tyr Ser Glu Ala Glu Ile Lys Val Arg Glu Ala Thr Ser Asn Asp Pro  
 20 25 30  
 Trp Gly Pro Ser Ser Ser Leu Met Ser Glu Ile Ala Asp Leu Thr Tyr  
 35 40 45  
 Asn Val Val Ala Phe Ser Glu Ile Met Ser Met Ile Trp Lys Arg Leu  
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 Asn Asp His Gly Lys Asn Trp Arg His Val Tyr Lys Ala Met Thr Leu  
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 Met Glu Tyr Leu Ile Lys Thr Gly Ser Glu Arg Val Ser Gln Gln Cys  
 85 90 95  
 Lys Glu Asn Met Tyr Ala Val Gln Thr Leu Lys Asp Phe Gln Tyr Val  
 100 105 110  
 Asp Arg Asp Gly Lys Asp Gln Gly Val Asn Val Arg Glu Lys Ala Lys  
 115 120 125  
 Gln Leu Val Ala Leu Leu Arg Asp Glu Asp Arg Leu Arg Glu Glu Arg  
 130 135 140  
 Ala His Ala Leu Lys Thr Lys Glu Lys Leu Ala Gln Thr Ala Thr Ala  
 145 150 155 160  
 Ser Ser Ala Ala Val Gly Ser Gly Pro Pro Pro Glu Ala Glu Gln Ala  
 165 170 175  
 Trp Pro Gln Ser Ser Gly Glu Glu Glu Leu Gln Leu Gln Leu Ala Leu  
 180 185 190  
 Ala Met Ser Lys Glu Glu Ala Asp Gln Glu Glu Arg Ile Arg Arg Gly  
 195 200 205  
 Asp Asp Leu Arg Leu Gln Met Ala Ile Glu Glu Ser Lys Arg Glu Thr  
 210 215 220  
 Gly Gly Lys Glu Glu Ser Ser Leu Met Asp Leu Ala Asp Val Phe Thr  
 225 230 235 240  
 Ala Pro Ala Pro Ala Pro Thr Thr Asp Pro Trp Gly Gly Pro Ala Pro  
 245 250 255  
 Met Ala Ala Ala Val Pro Thr Ala Ala Pro Thr Ser Asp Pro Trp Gly

260 265 270  
 Gly Pro Pro Val Pro Pro Ala Ala Asp Pro Trp Gly Gly Pro Ala Pro  
 275 280 285  
 Thr Pro Ala Ser Gly Asp Pro Trp Arg Pro Ala Ala Pro Ala Gly Pro  
 290 295 300  
 Ser Val Asp Pro Trp Gly Gly Thr Pro Ala Pro Ala Ala Gly Glu Gly  
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 Pro Thr Pro Asp Pro Trp Gly Ser Ser Asp Gly Gly Val Pro Val Ser  
 325 330 335  
 Gly Pro Ser Ala Ser Asp Pro Trp Thr Pro Ala Pro Ala Phe Ser Asp  
 340 345 350  
 Pro Trp Gly Gly Ser Pro Ala Lys Pro Ser Thr Asn Gly Thr Thr Thr  
 355 360 365  
 Ala Gly Gly Phe Asp Thr Glu Pro Asp Glu Phe Ser Asp Phe Asp Arg  
 370 375 380  
 Leu Arg Thr Ala Leu Pro Thr Ser Gly Ser Ser Ala Gly Glu Leu Glu  
 385 390 395 400  
 Leu Leu Ala Gly Glu Val Pro Ala Arg Ser Pro Gly Ala Phe Asp Met  
 405 410 415  
 Ser Gly Val Arg Gly Ser Leu Ala Glu Ala Val Gly Ser Pro Pro Pro  
 420 425 430  
 Ala Ala Thr Pro Thr Pro Thr Pro Pro Thr Arg Lys Thr Pro Glu Ser  
 435 440 445  
 Phe Leu Gly Pro Asn Ala Ala Leu Val Asp Leu Asp Ser Leu Val Ser  
 450 455 460  
 Arg Pro Gly Pro Thr Pro Pro Gly Ala Lys Ala Ser Asn Pro Phe Leu  
 465 470 475 480  
 Pro Gly Gly Gly Pro Ala Thr Gly Pro Ser Val Thr Asn Pro Phe Gln  
 485 490 495  
 Pro Ala Pro Pro Ala Thr Leu Thr Leu Asn Gln Leu Arg Leu Ser Pro  
 500 505 510  
 Val Pro Pro Val Pro Gly Ala Pro Pro Thr Tyr Ile Ser Pro Leu Gly  
 515 520 525  
 Gly Gly Pro Gly Leu Pro Pro Met Met Pro Pro Gly Pro Pro Ala Pro  
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 Asn Thr Asn Pro Phe Leu Leu  
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&lt;210&gt; 3627

&lt;211&gt; 1760

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3627

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